

THE MEDICAL AND SURGICAL REPORTER

No. 1587.

PHILADELPHIA, JULY 30, 1887.

VOL. LVII.—No. 5.

ORIGINAL DEPARTMENT.

COMMUNICATIONS.

PNEUMONIA; COMPLEX IN ITS ORIGIN AND NATURE.

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When our knowledge of diseases becomes so perfect that we can, with unerring precision say of each group of symptoms, however imperfectly some of its factors may be developed, that it constitutes this or that affection; and when all apparent discrepancies are disposed of through the extension of knowledge, there will be less occasion for dogmatism in respect to disorders presenting themselves with signs, whose resemblances are delusive and variable in their character according to the nature of their cause.

Medical writers and thinkers are far from being unanimous as to what constitutes pneumonia; and, until they are, we shall hardly escape criticism if we declare that this or that plan alone is appropriate in the treatment of the condition or aggregation of symptoms which is so denominated.

I am satisfied that there are true pneumonias, definite in their manifestations and amenable to certain lines of treatment. Such are the croupous and catarrhal pneumonias of Juergensen.¹ I am also persuaded that there are certain affections entirely different in their nature, which are not curable by any treatment applicable to inflammation, yet which are characterized by many of the leading features of pneumonia proper. It is,

therefore, not difficult to believe that Doctors Corson and Maxwell may both be right in their judgment of pneumonia, as seen by them; and, that their treatment is suitable in their respective cases. I shall, however, quote from cases of my own to show that all forms of chest trouble characterized by pain, rapid breathing, fever, bloody expectoration, etc., are not alike in their character or cause; and that the treatment successful in one form is useless, nay, injurious in the other.

That there may be a form of pneumonia strictly malarial (so-called); and, that it is quickly amenable to the action of the cinchona salts, I cannot doubt. Notwithstanding, however, that I have practiced much in malarial districts, and have habitually given quinine in all stages of pneumonia, I am compelled to avow that I have never recognized a single case that proved to be distinctly malarial; or, one in which quinine alone sufficed for a cure. Instances may be related of other forms of disease which the malarial element completely dominated; and which, by analogy, give color to the claim that pneumonia may be produced or controlled by this influence. An inflammatory affection of such origin and control is here quoted from a paper heretofore published by me,² July 5th, 1880. T. H. has tenderness of the scalp and inflammation of the left eye, which is particularly painful during the night. He has also tenderness of the liver, and a pain in the top of the right shoulder. There is also fever, of which he had a paroxysm on July 3rd. A former attendant, who dis-

¹ On quinine in fevers and disorders accompanying them. MED. AND SURG. REPORTER, vol. xlvi, p. 355.

² Ziemssen's Cyclopædia.

cerned only the intense suffering in the eye, directed his attention alone to that organ; treating it by instillation of nitrate of silver, but ineffectually. I gave him half-drachm doses of iodide of potassium, in one pint of water, in the morning, fasting, as directed by Dr. Guitéras, in the *Philadelphia Medical Times*, vol. x, page 446. This for the liver. Through the remainder of the day, he had liberal doses of quinidæ sulphas, with opium. July 7th, had pain in the head during the past night, but the inflammation and pain in the eye are less; the tongue is coated, but moist; the urine is free, and the appetite improved. The treatment to be continued as before: a weak ointment of calomel and lead cerate being applied to the eye. On July 10th he was so far recovered as to be discharged, taking only a chinchona tonic.

I have been accustomed to use quinia in the outset of all cases of pneumonia, for its modifying effect on the fever which pertained to it, or was its source; yet, one of my latest cases, which was accompanied by pleurisy, is a conspicuous instance of its failure to check the process going on in the lungs.¹

Mrs. L., a young married woman, was taken with a cold and hoarseness, February 16, 1887. At my visit on that day she had a very high fever and general pains throughout the body; the pulse-rate was 140. The treatment was two grains quinine sulphate every two hours, and two grains opium every four hours. She received the same treatment until February 19, when on account of severe vomiting, she took potassium citrate, creosote-water, and hyocyanus, but no opium. Her skin was constantly bathed in perspiration, yet there was no remission of the rapidity of the heart's beating. She had been using externally from the commencement a remedy of her own—a tarpaulin plaster.

February 20, 10 A. M.—The patient has had a very severe pain during the night, as also a constant cough. The pain occupies the entire area of the left chest from scapula to sternum, and from the axilla to the free border of the ribs. She lies upon the right side, with the left arm close to the affected region, and is unwilling to move either the body or the arm. Early in the morning she commenced to expectorate bloody mucus: the respirations reach 38 per minute, and the pulsations 124; ratio, 1 to 3.3. The skin is moist, the tongue coated, and the stomach

quiet. A plaster of cantharides was so placed as to conform to the painful area, and the following medicines were prescribed, viz., three grains of quinine every two hours, and three grains of opium every six hours.

February 21.—The plaster has caused a perfect blister. The patient is free from pain; the skin is moist; the cough and expectoration moderate; the sputa less bloody. The respiration is 22, and pulsations 102; ratio, 1 to 4.6. She sleeps considerably.

February 25.—Respiration 19, pulse 76.

February 26.—Took leave, the patient having recovered in eleven days.

Here is a patient who, in three days, had received perhaps a drachm of quinine, the influence of which was doubtless continued, with a good deal of force, until the full development of the pneumonia, on the fourth night (February 19). At this time the respirations were 38, and the pulsations 124—a ratio of 1 to 3.3. Twenty-four hours later, when the effect of a full blister had been obtained, the respirations had fallen to 22, and the pulsations to 102, the ratio was much increased—1 to 4.6. Without wishing to belittle the effect of the quinine and opium, which were used during the operation of the blister, no one can, I think, doubt that the last factor arrested the *morbid process*, and put an end to the disease, without any *secondary lesions*.

There is a form of pneumonia very different from the foregoing—different in its origin and nature; different in the course of treatment required; and different in its results. I present the following from a paper on Adynamic Pneumonia, published by me in the *Philadelphia Medical Times*, vol. x, p. 549, *et seq.*:

"The pneumonia . . . exhibits from its beginning not vigor but great weakness and tendency to prostration. The patient lies upon his back. The pulse is rapid, while the surface may be bathed in perspiration. The sputa, the mucous membranes and the skin are dark-colored. There is great restlessness and speedy loss of strength. This is typhoid pneumonia, or pneumonia with hypostasis, and the treatment useful in the sthenic variety is worthless, if not absolutely pernicious. The pulse rises instead of falling; the difficulty is exaggerated instead of lessened, and the powers of life quickly fail. The cases subjoined are from the paper named.

"Mrs. S., aged about 50 years, of a delicate constitution, was taken January 31, 1875, with chillness and pain in the side, a high fever following. I saw her at 9 o'clock A. M.,

¹ On blistering the surface of the body in internal inflammations.—*Philadelphia Medical Times*, vol. xvii, p. 624.

February 1. She had slept none during the night, and was lying upon the back, profusely perspiring. Her breathing was very quick and shallow, and she was expectorating a bloody mucus. The bowels were shut; pulse, 112. A blister was immediately applied to the whole of the affected part, and the following medicines ordered:

B. Hydrag. chl. mit.....grs. xij;
Sodii bicarb.
Quiniae s. aa.....grs. xij.

Mix, and divide into eight powders, one to be taken every three hours.

B. Potassi citratis.....3j;
Ex. aconiti fl.
Ex. digitalis fl. aa.....gtt. xij;
Sp. aetheris nit.
Aqua, aa.....3j.

Mix.—A teaspoonful to be given alternately with the powders.

Morphine was prescribed for the restlessness and to procure sleep.

February 2.—I was sent for in haste, arriving at 10 A. M. The breathing had not improved; the tongue was dry; the bowels were still closed; the urine hot and red; the skin moist; the voice whispering; the pulse quick and weak; the respiration bronchial; and every movement was attended with exquisite pain. As the epistaxis had failed to produce a sufficient blister, the surface was painted with cantharidal collodion. Seven o'clock P. M. the patient had dozed some, and seemed to breathe easier; the urine was freer, and there had been an evacuation by the bowels. Medicine continued as before. On the morning of February 3, the fourth day of the disease, collapse occurred, and she died.

W. R. R., a farmer, about forty years of age, was taken, March 28th, 1875, with chills, alternating with fever and free epistaxis. When I saw him the day following, he had "a catch" in the left hypochondrium, cough, and expectoration of mucus, with some blood. The pulse rate was 100; the skin moist, but red and congested; the soft palate, also, presenting a punctate redness. The bowels were moving freely. No false sounds could be detected over the affected part. The same medicines were ordered as in the preceding case, except the calomel, and domestic applications were made to the chest. The next day he was coughing up rusty mucus; was sweating profusely; his headache continuing; pulse unchanged. The chest was still resonant, and he was careful to show me that he could fully inflate his lungs. Belladonna was added to the medicine to check the sweating. In the night he became delirious and very restless,

complaining of his bowels and head. I was summoned, arriving at 1 A. M. of April 1st. His pulse was unchanged and he was drenched with perspiration. The iodide of potassium was substituted for the citrate, and paregoric elixir was added. At 5 P. M. there was less perspiration, the pulse was 105, and epistaxis had recurred. April 2d, the tongue was cleaning; pulse, 102. April 3d, had had fever during the night, succeeded by free sweating; was very restless, needing morphine; his urine was loaded with straw-colored precipitates; the tongue was moist, but heavily coated, except at the tip; the bowels were tender and tympanitic; the pulse 111 and rather weak. He still raised stained mucus, and auscultation revealed some blowing respiration in the posterior part of the chest, but no râles. Iodine, dissolved in cantharidal collodion, was now applied to the chest, which was enveloped in oiled silk. Yolk of egg, wine, and milk were ordered. At 7 P. M. of same day the patient was delirious, with a pulse at 125. He was in a gentle perspiration. . . . The patient continued to fail, dying on the ninth day of the disease.

August 2d, 1871, took charge of the following case: E. P., farmer, aged 34, took a cold about the preceding holidays and cough, attended by foul corruption, lasting to the beginning of May. . . . His immediate sickness dates from July 24th, commencing with an agony in the loins and hips and a pain in the head, accompanied apparently by congestion, as he says he knew but little. These symptoms in less severity, with a morning and evening paroxysm of fever, prevailed until the date of my visit, which was during an interval; the pulse marking 78. The tongue had a thick, creamy coating, and he had a cough, with mucoid sputa. His urine was nearly thick; his bowels had been costive throughout, but he had taken "salts" twice, with a hypercathartic effect. On physical exploration of the chest, there was found dullness on percussion in the right lung, anteriorly and posteriorly, with prolonged expiration and increased vocal vibration at apex; on the left side there was dullness in front only. He was ordered a pill composed as follows:

B. Quiniae sulph.
Cinchonae sulph.....aa D
Acid. sulph. arom., q. s.

Mix and divide into ten pills, one to be taken every four hours alternately with a mixture having expectorant, diuretic, and anodyne properties.

The day following, the pulse was as before, the tongue appearing cleaner. August 4, a sub-

crepitant râle was heard in the lower part of the right lung, with large bubbling. The cough was tight and the expectoration streaked with blood. The tongue was cleaner. The quinine was continued as before and the iodide of potash added to the mixture, with gentian as a tonic. On August 5th the pulse was 96. A blister was applied to the chest as a counter-irritant. From this time till the 10th the pulse gradually rose, notwithstanding the constant saturation of the system with quinine; the cough was tighter and the breathing shallower. On the 11th the tongue was chapped and the whole pharynx covered with aphthous-looking exudation on a purplish ground. There had been high fever the preceding night, with headache. Death occurred on the 15th, the fourteenth day of treatment and the twenty-fifth of the disease.

A review of the symptoms of the foregoing cases show many which coincide with those of the infectious fevers, e. g., the agony in the head and loins, the lividity of surface, the looseness of the bowels, and the epistaxis; and I have been led to think well of the idea of Juergensen¹ formulated in this question to himself: "Are the pulmonary lesions and the fever due to a common cause?" His reply on a succeeding page is clear and unequivocal: "*Croupous pneumonia is a constitutional disease, and is not dependent on a local cause. The pulmonary inflammation is merely the chief symptom, and the morbid phenomena are not due to the local affection. Croupous pneumonia belongs to the group of infectious diseases.*"

It may not be amiss to quote a paragraph or two, additional, from the paper by the same author. "Croupous pneumonia can no more be produced by the excitants of inflammation than can the characteristic lesions of typhoid fever." Again: "The diseases which I should especially like to have classed in the same group with croupous pneumonia are articular rheumatism and epidemic cerebro-spinal meningitis. These three diseases are undoubtedly non-contagious either directly or indirectly, and should be referred to the category of malarial infections."

Having shown that there are comprehended under the term pneumonia conditions different entirely in their nature, the practice pursued, to be successful, cannot be uniform—each case must have a treatment adapted to its character. Should the temperature take a very high range,—105° F.,

or over,—there can be no doubt that antipyretic measures are imperatively demanded to counteract dangerous effects upon the brain. The material selected must sometimes be chosen with reference to the conveniences and facilities at hand. Cold water is doubtless very efficient and suitable, if the physician can exercise proper supervision. With antipyrin and antifebrin my experience is limited; but quinia did me good service long before these substances were made known. My record of its use as an antipyretic in typhoid fever² in the year 1862, states that the fever daily declined under its use, as evinced by an amelioration of all the symptoms, the reduction in the number of heart-beats per minute being especially noticeable for several days in succession. This was prior to the general use of the fever thermometer. The disastrous effects of high temperatures on the brain and nervous system are shown by the convulsions of children, which are often directly traceable to paroxysm of fever. The case of pneumonia, detailed by Professor Pepper, in the first number of the current volume of the REPORTER, is one which fully illustrates these views. I quote, italicizing what I wish to call special notice to:

"F. C., a boy aged three and a half years, . . . in the fall (1885) had a violent attack of dysentery, which was ushered in with high fever (105°), and a fully developed convolution. He made a good recovery . . . returning to Philadelphia from the sea-shore, in October, 1886, in unusually good condition. In November, he began to exhibit catarrhal symptoms, affecting in a slight degree the respiratory and digestive mucous membrane. He was confined to the house for at least two weeks prior to the onset of the attack now to be described, which occurred on December 2d.

"He was noticed to become suddenly very hot, and, at the same time, to grow dull and heavy. I was summoned hastily, but before I reached the house he had a severe convolution. The rectal temperature was 107°. After the convolution he was heavy and dull, and almost unconscious, but this state was disturbed by recurrence of severe convulsions at short intervals. He was immediately placed in a tepid bath, the temperature of the water being reduced until it was quite cool, and until the temperature fell to 104°. It rose again almost immediately after his removal from the bath, and the repetition of this measure did not produce any more

¹ Art. *Croupous Pneumonia*, Ziemssen's Cyclop., v., p. 143.

² New Jersey Medical Soc. Report for 1863.

lasting effect. Antipyrin was then given in the dose of three grains, repeated in three hours. The effect was very prompt and satisfactory. The temperature fell to $103\frac{1}{2}^{\circ}$, the skin became moist and relaxed, and the rectal temperature did not rise above 105° for several days."

A treatment that so evidently averted the danger of immediate death, can but receive our hearty commendation. This for the excessive temperature. For the development in the lungs, my views are elsewhere made known.¹

It will greatly simplify our notions of pneumonia, and make our treatment of it much more satisfactory, if we shall be able to relegate the affection, which I have heretofore described as adynamic pneumonia, to the category of infectious fevers, with a pneumonic development; and the disorder treated by Doctor Maxwell to that of the pernicious fevers, with a pulmonary complication. The following quoted from Juergensen,² on the malarial complication of croupous pneumonia will, I am sure, be interesting and timely.³ "There are two forms of this complication which must be distinguished from each other—a simple co-existence of croupous pneumonia and intermittent fever, and *a malarial infection localizing itself in the lungs*. In the first case there is a mere complication, the symptoms run their course alongside of each other, and when the intermittent fever is cured by quinine, the pneumonia, which still remains, continues its progress undisturbed. *The malarial infection localizing itself in the lungs exhibits itself, according to Grisolle, as either intermittent or remittent pneumonia, and both belong to the group of pernicious forms.* Thus, cases are characterized by the occurrence of pain in the side and bloody expectoration, coincident with the ushering in of the attack by an unusually severe and long-continued chill. At the same time, the physical examination reveals dulness of the percussion note, and fine, dry, abundant crepitant rales sometimes mixed with blowing sounds. These local symptoms continue through the hot stage of the intermittent, and then quietly subside, together with the pneumonia, during the profuse sweating, at least in the first and second attacks. Occasionally, however, a slight amount of pulmonary lesion can be detected even during

the apyrexia, which is said to be complete. The tertian and quotidian types are more frequent than the quartan. If the return of the attacks is not prevented, the patients commonly die in the third or fourth paroxysm; in many cases both lungs are affected, and severe brain symptoms are also present. The remittent form is distinguished from the intermittent by the fact that during the remission a resolution of the local process does not always take place. . . . In both forms the whole disease, including the pulmonary affection, may be controlled, and perfect health restored by quinine."

Juergensen adds this pithy statement: "It appears to be fairly well proved that a severe disease of the lungs may be produced by malarial poison, but *it is by no means demonstrated that this affection is croupous pneumonia.*"

Let us not, therefore, be discouraged at the divergence of views respecting this disease. Observations made in the true spirit, and interchange of opinions honestly expressed and courteously maintained, must sooner or later establish the truth. In medicine, as in other realms of knowledge, "we know in part"; and if "we prophecy in part," we shall be in a happy state of mind to enjoy the inauguration of the time when

"Error wounded writhes in pain,
And dies among his worshippers."

PHLYCTENULAR OPHTHALMIA.

BY EDWARD JACKSON, M. D.
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The acute inflammations of the eye are apt to demand the attention of the general practitioner, and phlyctenular inflammation of the conjunctiva and cornea is so common and so generally amenable to proper treatment, that it is of especial interest and importance. The phlyctenule, which is the lesion characterizing the affection, may be single or multiple, and situated on either the scleral portion of the conjunctiva or the cornea, or both, the corneal margin of the conjunctiva being a favorite location. It consists of a swelling two or three millimeters in diameter, due to semi-solid exudation under the epithelial layer, and appears rather suddenly, with a good deal of stinging and smarting in the eye. Generally, after two or three days the centre breaks down, forming a superficial ulcer. The hyperemia is mainly confined to the immediate neighborhood of the

¹ Art. on Catarhal Pneumonia, *Phil. Med. Times*, Vol. XII., p. 887. Art. on Blistering the Surface in Internal Inflammations, *idem*, Vol. XVII., p. 623.

² Ziemssen's Cyclopedie, Vol. V., p. 121.

³ The italics are mine.

phlyctenule; but in the conjunctiva lining the lids, the vessels will almost always be found enlarged and tortuous, while the tissue between them is transparent and free from the exudation which marks catarrhal and purulent conjunctivitis. There is an excessive secretion of, sometimes acrid, tears, but very little muco-purulent discharge. There is usually a strong tendency to keep the eyes tightly closed, and to avoid light; but this does not start as a true photophobia. The morbid irritation primarily involves the nerve filaments of the fifth and not of the optic nerve, and the patient may as violently resist the opening of the eye in a darkened room as in a bright light. Still, by the continuous avoidance of light, in many cases, a true photophobia is presently developed.

Commonly but one eye is attacked at a time; and if both suffer, as they are eventually apt to do if repeated attacks occur, one is generally much worse than the other. The disease is one of childhood and youth. Of 32 cases seen during the last year in private practice and in the eye service of the Polyclinic, 11 were five years of age or less, 10 were between five and ten, 5 between ten and fifteen, and 5 between fifteen and twenty. In adults but a single case occurred, which was in a woman of twenty-eight. Of these cases 13 were in males, 19 in females. The writer is inclined to think that the disease is generally more liable to affect girls, though such a tendency has not been noted by others. Children of pure or mixed negro blood are especially subject to it.

Phlyctenular ophthalmia depends most obviously upon some diathesis or cachexia, some general vice of nutrition. It is a common sequel of the acute inflammatory diseases of childhood. It has long been regarded as a manifestation of "scrofula," and Arlt in his last work retains for it the designation conjunctivitis scrofulosa. It is most frequent among the poorer classes, especially in towns and cities; but, like the constitutional condition upon which it springs up, it is by no means strictly confined to them. Owing to this dependence on general disorders of nutrition, difficult or often incapable of complete removal, relapses and repeated attacks are very common.

When the phlyctenules are confined to the conjunctiva, the disease is properly a phlyctenular conjunctivitis, and usually responds promptly to treatment; recovery occurring within one or two weeks, without great inconvenience, or serious danger to vision. When, however, some or all of the

phlyctenules are situated on the cornea, as was the case in 14 of the patients above referred to, it is much more obstinate; and there is great danger of permanent impairment of vision through alterations in the shape or transparency of the cornea, and the danger increases with the extent of corneal surface involved, and its nearness to the centre of the cornea. If the ulceration extend much in front of the pupil, some impairment of sight is inevitable; and often when this region is not directly invaded, considerable astigmatism may result from the cicatrization of other parts, and as astigmatism from this cause is more or less irregular it cannot be wholly relieved by glasses.

When the phlyctenule is situated on the cornea it cannot be immediately surrounded with hyperemia; but the redness is manifested in the enlargement of the nearest conjunctival vessel, and of that net-work of extremely small vessels which surrounds the margin of the cornea, whose hyperemia occasions the so-called peri-corneal zone. Sometimes this zone of redness entirely surrounds the cornea, usually it is most marked in the part nearest the phlyctenule, and often it is limited to that locality. If the case is at all obstinate the nearest conjunctival vessels are very apt to send out branches, which extend upon the surface of the cornea to the ulcer. Thus is formed the opaque vascular band, indicated by the terms fascicular, or superficial vascular keratitis.

The differential diagnosis of the disease is not usually difficult if attention is given to the great irritability of the eye, with the absence of purulent discharge, or general visible lesions, the localization of the hyperemia and the tendency to recurrence of the attacks.

In the treatment, bandaging of the eye is to be avoided unless there seems danger of an ulcer perforating the corner. Blisters, setons, and other such counter (?) irritants are to be mentioned only for condemnation. It is usually best to begin by placing the eye under a mydriatic. A single drop of

B	Atropine sulphat.....	gr. j.
	Aq. destillat.....	f 3ij.

or the same quantity of

B	Duboisiæ sulphat.....	gr. ss.
	Aq. destillat.....	f 3ij.

may be instilled three times a day. In the lighter cases of conjunctivitis this is not necessary. But in the severer cases, and in all which involve the cornea, it should be done. Although in this affection we need

not invoke the greatest power of the mydriatic, I prefer the above solutions in small quantity, to weaker ones, more profusely applied, because the increased and excessive lachrymation, provoked by even the gentlest interference with such an eye, causes the immediate dilution, and to some extent, washing away of the solution applied. In mild cases which require no mydriatic, and as an addition to the more severe,

B Acid. boric.....gr. x.
Aq. camphoræ.....3j.

may be freely instilled every three hours.

A most important part of the local treatment is the dusting of calomel upon the open ulcers, or the application daily of an ointment containing:

B Hydrarg. oxid. flav.....gr. j.
Petrolatum.....3j.

placing it on the inside of the lower lid, and gently rubbing the lids over the globe until it is diffused throughout the conjunctival sac. The proportion of mercury in this ointment may sometimes with advantage be doubled.

Most cases of phlyctenular conjunctivitis can be cured by local treatment alone, and often in a very few days. But to effect a cure where the cornea is involved, and to prevent a repetition of the attack, it is necessary to bring influences to bear upon the general processes of nutrition. In the first place, the child should secure several hours of out-door life every day. To accomplish this it is necessary to control the photophobia. It may be lessened by cold-douching of the eye-lids, or applications to them of *very hot* fomentations, for five minutes at a time. The mydriatic allays it very much, and a broad-brimmed hat or dark glasses may be worn. Everything should be done to induce the child to overcome it. Next after out-door life, with suitable clothing, and a proper temperature when in the house, the alimentary canal demands attention. In most cases errors of diet have to be corrected; and a mild purge is often very beneficial. After all these matters have been attended to, cod liver oil, reconstructives, tonics and alteratives may be thought of. Iron is most frequently indicated, and the syrup of the iodide finds here one of its best applications. It is well to commence with one drop for each year of the patient's age, given with plenty of water upon an empty stomach, three times a day; and to rapidly increase the dose until its therapeutic influence is manifest, or indications of gastro-intestinal irritation are noted. Constitu-

tional treatment should be continued a considerable time after the attack has subsided.

The resulting astigmatism of phlyctenular keratitis usually continues to alter in degree for some months, during which time close eye-work should be avoided. When it has assumed its permanent condition, it should be carefully studied, both with and without a mydriatic; and, in so far as it is capable of it, corrected by the appropriate lenses.

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Hysterical Blood-Spitting.

BY STANLEY M. WARD, M. D., ELLENVILLE,
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In an article on Hysteria which I had the pleasure of preparing for the REPORTER (Vol. LII, No. 15) I referred incidentally to a case of hysterical blood-spitting which I had then had under observation for two years. I propose now to give a complete history of this case from April, 1883, the date of my first visit, to February, 1886, when I last saw her, prefacing it with the following note from her mother written under date of May 23, 1887: "Gertie has had no attack of bleeding since last September and it was not bad then. She does not complain of her side troubling her very much and her nervousness is nearly gone. She can eat more of a variety, but vomits at times. She is now attending school in Brooklyn."

April 18, 1883, saw Gertie B, aged 17, decided blonde. Her family history is good.

The patient was healthy until 1882, when she fell and struck her side against a stump. This blow was followed immediately by vomiting, vertigo and insensibility, and later by the appearance of a tumor (?). In a few days she regained her usual health. On April 15, 1883, after some extra exertion and mental excitement, she had a severe attack of epistaxis accompanied by vomiting and followed by diarrhoea. On April 18, she suffered with diarrhoea and was so weak that her discharges were received in napkins. She was given sub-nitrate of bismuth and a little brandy occasionally. At 8 A. M., the 19th, Dr. J. J. Ward saw her; she had no diarrhoea but was vomiting continually. The emesis was not brought on by food or medicine. The matter ejected was a darkish green liquid, and sometimes contained shreds which resembled mucus.

Under the use of small pieces of ice, minute doses of calomel, bismuth, with lime water, her symptoms improved by next morning; but in the afternoon they returned

with greater severity than before. I saw her at 11 P. M. Administered nutrient enemata every four hours and interdicted all medication and food by the mouth. On April 24, I began giving her small quantities of food by the mouth instead, and three times daily she had two drops of Fowler's solution of arsenic, combined with three drops of the tincture of nux vomica. She complained bitterly of hunger on the occasion of my last visit on the above date.

It was not easy to make out the exact nature of the attack, but, whatever the condition of the alimentary canal, it was relieved only by giving the stomach absolute rest.

May 10, sixteen days from my last visit, the patient was again attacked with diarrhoea. I found her limping around the house favoring the left leg by throwing most of her weight on the right. She said the tumor, above referred to, had pained her considerably of late but was now much smaller than formerly. She did not wish to have it examined. I prescribed a simple astringent and left her. At 11 P. M. I was summoned with the news that the girl was vomiting blood. About noon she had something warm in her mouth and spat it out, to find it blood. She had repeated the act several times during the afternoon and evening, and had fainted once after raising a large quantity of blood. There was pain over the "tumor" and in the epigastrium. She spat the blood and did not vomit it. There were no attempts at emesis except at long intervals. The blood was not aerated and it did not show any signs of having been acted on by the gastric juice. Her lungs were acting well. A close inspection of the fauces and posterior nasal passages convinced me that the source of the blood was not there.

She continued to spit blood thus until midnight of May 11th. The longest period between the attacks was half an hour, the shortest ten minutes. I have no means of knowing the quantity. At this time, midnight, she had some localized peritonitis, pain in the back, cold extremities and conjunctivitis, pulse 120, temperature 96° , no movement of the bowels had occurred in six hours. There had been administered morphia in small doses, ergot and ergotine, nitrate of silver, oxide of zinc, hamamelis, and Monsels' solution of iron. She slept for three hours. On awakening she soon began vomiting. The matter ejected was a greenish liquid, of a horrible odor and unmixed with blood. Great relief was experienced after vomiting, although there was severe

pain before and during the act. All medication by the mouth, except small doses of morphine, were discontinued and nutrient enemata were given every six hours. The vomiting and nausea were almost constant until the night of the 15th. The enemata failed to be retained on the 13th and were discontinued. On this day she began to complain of numbness, and of tingling sensations in various parts of the body, and also to tell outrageous lies. Bowels moved copiously on the 13th and 14th, the stools being semi-fluid and resembling decomposed blood. They were very offensive. The vomited matter was a darkish-green liquid, emitting a horrible odor. May 16, she is vomiting at long intervals. Is much brighter. Is retaining a half teaspoonful of Murdock's food every three hours given with a little brandy, and at night she takes an eighth of a grain of morphine.

May 19, Dr. J. J. Ward and I saw her. Complains of a sense of fullness in the epigastrium and is very hungry. Has vomited nothing since the night of May 16. Bowels confined since May 15. She was kept gently under the influence of morphine and a pill of aloin, gr. 1-6; strychnia, gr. 1-20; and belladonna, gr. 1-8, was exhibited every six hours. After taking three of these pills she had several watery passages. She was given one drop of Fowler's solution of arsenic every four hours. Beef tea and milk were also allowed.

May 21. She still complains of hunger. Allowed a little more latitude in eating. May 25. Is around the house. Limps badly while walking. Has no pain. Appetite voracious. May 29. Tendency towards diarrhoea. Otherwise doing nicely. Stopped arsenic and gave opium and bismuth p. r. n. June 6. Severe diarrhoea. No appetite. She has passed several restless nights since my last visit. Refuses to take any more of the Murdock's food, as it sickens her. She was ordered suppositories of opium and tannin, and by the mouth is to have six teaspoonsfuls of elixir of gentian and iron during the twenty-four hours.

June 8. Limps badly. Bowels move three times daily, even while taking the astringent suppositories. Intense conjunctivitis. She says that blood oozes from her eyelids at times. Is not emaciated in the least. On the left side I felt a hardened mass, which was painful on pressure. Patient has spit up blood four times to-day. Ordered her to bed. Murdock's food with milk thrice daily, a pill of ergotine and opium thrice a day, and also a tonic pill thrice daily. On the 10th

I decreased the opium, as it produced drowsiness.

June 15. Patient is gaining in flesh; has had no bleeding in a week; walks more erect, and thinks the "tumor" is diminishing; complains of headache and pain in the back. The tonic pills were discontinued and dialysed iron substituted. Continued Murdock's food with milk, a pill of ergotine and opium at night, and twice daily bismuth and opium, as there was a tendency to diarrhoea.

June 16. On June 16th substituted suppositories of gallic acid, tannin, and opium for bismuth mixture. The diarrhoea was lessened under this treatment and her bowels moved naturally on June 20th.

June 22. Patient complains of excruciating pain in the top of her head and of aching limbs. Her mother states that there is oedema of both ankles at times. Her last menstrual flow was scanty. The dialysed iron was continued and three grains of quinine given every three hours. She refused to allow an examination of her side, but said that the "tumor" was gone.

June 23. Began bleeding from the mouth to-day. Menstruation also commenced. Dr. J. J. Ward saw her. He failed to find any evidence of a "tumor" after carefully examining her side. All former treatment stopped. She had five drops of hamamelis combined with five of ergot every hour, and an occasional pill of morphine, gr. $\frac{1}{4}$, and atropine, gr. $\frac{1}{20}$, both to be continued until symptoms were relieved.

July 6. Note from patient states that the bleeding stopped on the night of June 23d and had not resumed. She had taken four of the atropine and morphine pills in twenty-four hours. Had recommended the dialysed iron and felt "much improved."

July 29. Her general appearance is indicative of health. She limps somewhat while walking. Bowels move at least twice daily. Appetite capricious and irregular. There is no "tumor," but there is soreness over its former site (?). The treatment was continued.

On July 31st and August 1st, there were copious attacks of epistaxis, but no blood passed this month.

On August 9th she had some hemichorea. The choreic movements stopped on August 12th, and were followed immediately by partial paralysis of the tongue, which lasted a few minutes.

In February, 1886, a sister was married against her wishes. Brought herself into prominence, on the day of the wedding and the night before, by spitting blood again. She bled for three days, and had the same

intense headache and tenderness along the spine. She was treated with the combination of valerian and assafœtida with morphine and atropine, as indicated. This is my last note. The communication received from the patient's mother, already quoted, partially fills the hiatus between that time and the present. It will be observed that the intervals between the attacks of bleeding are lengthening, and it is to be hoped that in time the attacks may cease. I doubt it, however, for as some persons under undue mental or physical excitement suffer from excessive urination or diarrhoea, so I believe my patient will have blood spitting.

I have called this a case of hysterical blood spitting. I may state that such a diagnosis was not arrived at until every possible cause for the hemorrhage had been carefully considered by the consulting physician and myself.

In concluding, I may be allowed to call attention to an extract from an address delivered by M. Auguste Ollivier before the congress at Nancy, an extract which has appeared in several periodicals, but which I cannot find entire. He says hysterical haematemesis is too often considered as symptomatic of gastric ulcer, and that "in reality it is a form of local hysteria, with gastralgia accompanied by hemorrhage."

MALIGNANT LYMPHOMA, OR HODGKIN'S DISEASE, WITH PNEUMONIC COMPLICATION.

BY JAMES MACREADY, M.D., MONROE, OHIO.

Aug. 26th, 1885, I was consulted by J. E. L., a farmer aged 50 years, in reference to a general enlargement of the lymphatic glands of the face and neck. The history which he gave was, that during the previous June he noticed a gradual enlargement of the glands in the submaxillary region of each side, the region of each ear and the post cervical region.

The submaxillary glands were the first to enlarge, from whence there was a gradual extension until the post-cervical became involved.

The submaxillary region of each side was occupied by a cluster of glands, five of which on the right side, and four on the left, were each about the size of a hazel-nut. These were the first to enlarge. When the hand was passed over the lateral and post cervical regions, the sensations communicated to it were those of numerous hard globular

July 30, 1887.

bodies, varying in size from small shot to that of a buck-shot lying loosely under the skin. No amount of manipulation caused pain.

His general health was apparently unimpaired.

An examination of the family history showed no hereditary tendency to scrofula or phthisis.

I did not see the patient again until Nov. 28th, 1885. During the interval which had elapsed since Aug. 26th, the glandular enlargement had advanced until, seemingly, each gland had increased in size until it was about twice its size at the former examination.

The face in consequence was hideously deformed. He now complained of a cough and sore throat.

An inspection of the throat showed the tonsils to be enlarged, and the uvula was greatly elongated. Auscultation and percussion revealed no lesions of the lungs, which led me to conclude that the cough resulted from laryngeal irritation by the elongated uvula. There was no history of syphilis; the absence of struma and of a syphilitic history excludes them from the causation of the glandular enlargement.

I was, therefore, led to conclude that I had one of the forms of lymphadenoma to deal with, and whether benign or malignant only time would determine.

The patient's general health at this time was apparently unimpaired. The appetite was good, and nutrition of the various tissues seemingly well performed. His capacity for the performance of labor was as vigorous as formerly. He had not been seriously sick during the past twelve years.

The plan of treatment adopted was, for the relief of the sore throat, the following, to be used as a gargle:

R. Tannin,.....	3 j
Ammon. murat.	3 jj
Aque,	f 3 iv

M.

As a resolvent to subdue the glandular enlargement I gave, tinc. iod. comp. six drops three times a day, and as an external application to the enlarged glands I prescribed :

R. Potass. iod.	3 jj
Aque,	f 3 iv

M.

Each evening before retiring pledges of cotton saturated with this solution were applied to the enlarged glands, and kept in place by an external covering of rubber cloth.

A favorable experience in the treatment of glandular enlargement of strumous origin, by the constant electric current, induced me to try it in this case.

Each of the largest tumors, on every second or third day, was subjected to electrolysis. An insulated needle attached to the negative pole, was introduced into the gland. The positive pole enveloped in wet sponge was passed over the adjacent tissues, during a period which varied from five to twenty minutes. The time required for thorough electrolysis varied with the quantity of the current that could be used, sometimes only six elements were intensely painful, while at others sixteen elements were well borne. If the cutaneous surface was saturated with the iod. potass. solution, the application of a feeble current was intensely painful.

Each time the electricity was continued until the withdrawal of the needle was followed by an aqueous discharge, untinged by blood. Puncture of a gland without thorough electrolysis was always productive of a flow of blood, which continued until arrested by pressure.

During the latter part of December, this treatment was interrupted by an attack of facial erysipelas. At the expiration of ten days, the patient was again able to visit my office, when the treatment was resumed, and continued through Jan. and Feb. 1886. During the three months that had elapsed since beginning treatment by electricity, there was no perceptible change in the size of the various glands. They rarely became painful after treatment.

On March 7th, he was again attacked by erysipelas, which began at the end of the nose, and spread rapidly until the whole face became involved and enormously swollen.

At the end of a week the erysipelas was under control. The subsidence of the swelling showed the enlargement of the glandular structures to be on the increase, especially in the post-cervical and lateral regions, and extending to and beneath the clavicle. The axillary glands and those in the inguinal regions now began to enlarge rapidly, and soon formed large clusters in those regions.

The advent of the latter enlargements, and their rapid growth, gave to the case an unfavorable aspect.

After recovering from the erysipelas, he did not regain his usual strength, though he was able to return to his business. Anemia now began to be apparent, and the cutaneous surface assumed a tawny, unwashed appearance that contrasted with the former healthy color. When performing labor which re-

quired him to stoop much, he complained of dyspnoea.

The remedies which have been used to this time (March 20) were proving to be unreliable. The iodine treatment was discontinued, and potass. arsenite substituted as follows:

B.	Liq. potass. arsenitis.....	f 3 ss.
	Aquæ.....	f 3 ij ss.

M.

Of this a tablespoonful was taken three times a day. The electricity was used as often as he was able to visit my office.

April 3, he visited my office for treatment. At this visit there was evident subsidence of the glandular enlargement in all parts of the neck; but those in the axillary and inguinal regions were unaffected. This was the last time electricity was applied.

April 12, I was summoned to visit him at his residence. I found him much exhausted and unable to leave his bed. He informed me that he had been having a chill each day at about 10 A. M., during the three preceding days.

My visit was made at 10 A. M. His temperature now was 102°, pulse 90. Complained of pain in the right subscapular region. Auscultation over this region revealed crepitant. Coughed some, but this was not annoying. The urinary secretion was abundant and highly colored—almost blood-red. Its specific gravity was 1030. The cervical glands were much diminished in size. Six days after this the glandular enlargement in the different cervical regions had so far diminished that it was necessary to closely inspect the parts involved to detect any enlargement. Gradually the crepitant râles gave place to tubular respiration, while percussion over the right lung elicited the signs which denoted consolidation over the whole right lung. The urinary secretion continued to be abundant, and maintained a specific gravity of 1030 as long as I was able to secure it for examination. Its color was blood-red. A portion of the coloring matter subsided to the bottom of the chamber, and stained the surface a deep pink color. Though it looked as if it contained blood, no red corpuscles were detected by the aid of the microscope. Analysis showed the coloring to be *free urohæmatin*, which, when it appears in the urine in a free state, or in considerable quantity, is of great clinical importance, denoting rapid destruction of red blood globules, and excessive retrogressive tissue metamorphosis. Accurate analysis will almost always discover *urohematin* in the urine in small quantities. It is a normal ex-

cretion, resulting from blood corpuscles whose term of life has ceased, and as dead matter are removed, that others which are being constantly called into existence may take their place. "With every respiratory act, with every pulsation of the heart, thousands of blood corpuscles are destroyed and thousands reappear."

April 18, the patient became delirious.

April 19, the mental condition alternated between delirium and semi-coma. He seldom coughed. Up to the past two days he was able to move himself over the bed, and to assume any position desired of him. He now has to be assisted to turn in the bed, and passes his urine involuntarily. Death occurred April 20.

Seventy-two hours after death an autopsy was held. This was delayed to secure the consent of absent relatives. The body had been embalmed by the undertaker, who had introduced his embalming fluid into the brachial artery, without removing any of the fluids of the body.

There were present at the examination Dr. T. A. Dickey, of Middletown, O., to whom I am indebted for assistance in the work, and Dr. August Eckert, of Trenton, O.

The deceased, when in health, had possessed a fair amount of muscular development, and adipose tissue. Each of these had become greatly attenuated. Before opening the body, inspection showed the glands in the axilla and those of the groin to be enlarged. Only the abdomen and thorax were opened. The contents of the abdomen were first inspected. The right lobe of the liver was enlarged in all directions, its inferior margin extending not less than two and one half inches below the border of the ribs. It was indurated, but not nodulated. The left, or transverse lobe, was apparently atrophied, its border scarcely reaching to the median line. The spleen seemed to be uniformly enlarged in all directions, probably three times its normal size, and was quite hard to the touch. Beneath the capsule there was seen a whitish or grayish deposit, which, when the fingers were rubbed over the capsule, communicated a sensation of roughness. The stomach and intestines were normal in appearance, except a general enlargement of the lymphatic glands of each. The glands along the greater and lesser curvature of the stomach, and those of the large and small intestines and mesentery, were all in a state of enlargement, and varied in size from that of a hazel-nut to that of a large hickory-nut. The deep lymphatic glands of the abdomen and pelvis were all hypertrophied. So far as

the unaided eye could determine, the pancreas and kidneys were not diseased.

The left lung was slightly congested, evidently hypostatic. The right lung was hepatized in all its parts, and was of a dark gray color. When cut into, serum, and not blood, exuded. Small deposits of calcareous matter were found in this lung. Between the pleura pulmonalis and pleura costalis there were extensive adhesions of recent origin. The pericardium contained only a small amount of fluid. The heart was normal in size, but its muscular tissue was softened, and was easily broken up.

The bronchial glands were enormously enlarged. Some of them were in a state of softening, the capsule breaking easily and giving exit to a variously colored matter, resembling lard with coloring matter mixed with it. Others contained calcareous concretions. From the degenerations which were taking place in the glands they were probably the first to enlarge. The cadaver contained but little blood—much less than usual.

I think there can be no doubt that the immediate cause of death was pneumonia. How long life would have continued, had not this complication intervened, is a question on which we can only conjecture. The pathological anatomy, except the pneumonia, is that of *malignant lymphoma*, or Hodgkin's disease. The literature relating to the latter disease shows it to generally end fatally. Gower, who writes the article relating to it, in *Quain*, says: "Where the disease is widespread or the local growths considerable in size, a fatal termination is almost certain." This author designates it by the term, *lymphadenoma*.

Birsch-Hirschfeld says: "In some cases it lasts only from two to six months; in the majority, about one year; cases of over three years' duration are very rare."¹

This writer is probably the author of the term *malignant lymphoma*. He seems to doubt that any case has recovered. He refers to the cases treated by Winnewarter, and at the clinic of Billroth, by arsenic.

In the *Canada Med. and Surg. Journal* for July, 1883, two cases are reported, which were treated by arsenic, and decidedly benefitted, but not cured. In the case which I have reported the glandular enlargement on the neck and face continued to increase from August 26, to Nov. 28, 1885. On the last date treatment by electricity was commenced.

During the three months following there was no perceptible increase in the size of the

glands. After the second attack of erysipelas a rapid growth began.

March 20, Fowler's solution was first administered. April 3, a diminution in size was perceptible in those regions to which electricity had been applied. All those glands had not been punctured by the electric needle; only the largest ones. But those thus treated did not disappear faster than the adjacent glands. All the glands in those regions began a retrogressive movement about the same time. Did electrolysis of one gland influence adjacent glands? is a question not without interest. When we reflect that no enlargements except those of the face and neck were diminished, and that in other localities, where they were accessible to the touch, the glands continued to grow, it would seem that the change was affected not by either electricity or Fowler's solution alone, but by a combination of the two, the former being *catalytic* and the latter *eutrophic*.

While we are ignorant of the essential pathology of a disease, all treatment must, of necessity, be empirical. All we know of this disease is, that certain states of hematosis accompany or follow the glandular enlargement. But whether the cause is in the glands, the blood, or the nervous supply of the glands, we are ignorant.

If the empirical administration of arsenic leads to success in treatment—and there is evidence that this has been partially attained—cannot this be regarded as presumptive evidence that in the ganglionic nervous system is the *fons et origo mali*?

ABORTIVE TREATMENT OF TYPHOID FEVER.

BY F. MCTAGGART, M. D., OF SAN FRANCISCO,
CALIFORNIA.

Much has been said relative to the abortion or abbreviation of the course of enteric fever. Remedies of only ordinary utility have been vaunted as of special importance in this direction. New agents have been put forward with such praise that although prefaced by the writer with the expression of a non-belief in specifics, their overrating has given to them no other color than that of admirable specifics, and led to such reliance upon their employment as to produce much mischief. Drugs enthusiastically presented to-day are rejected to-morrow. A course of treatment plausibly advanced in the medical journals by some confident experimenter as of unwonted value, is denounced at once by

¹ Ziemssen. Vol. xvi. p. 844.

medical authority as of but little utility, or of no value whatever. Valued results from scientific investigation by eminent men in the profession are not unfrequently examined by those of equal prominence, only to be consigned to oblivion. What one famous teacher has found of paramount importance in abbreviating the duration of the disease, another absolutely fails to find of any virtue. This clashing of opinions and disagreement of conclusions opens such a field of doubt and uncertainty as to the nature and virtue of medicinal agents that the tendency is to such skepticism in medicine that the most palpable facts receive but passing attention. The conviction that medicines can only modify or mitigate violent symptoms, deters one from giving results of his own experience, however successful they may be.

It is, therefore, with hesitancy that I suggest a method of treatment which I have found to act as an abortive—in some measure at least—of this disease.

As I regard the cause of typhoid fever to be a germ which permeates the system through the breathing passage, and deranges the whole alimentary canal, I begin by charging the atmosphere of the patient's room with what I conceive to be antagonistic to the previously inhaled source of the disease; as spirits of turpentine and liq. sodii chlorinati are deadly to animal and vegetable parasites, the air is well charged with these. The former is not only destructive to disease germs, but is, when sprinkled about the room, productive of ozone. Be this as it may, a room thus deodorized is better for both patient and attendants. Next, whenever the strength of the patient warrants the procedure, I wash out the stomach with the following preparation, after cleansing with warm charcoal water:

R.	Liq. sodii chlorinati.....	f 3 ij
	Vini gallici.....	f 3 j
M.	Aque destil. q. s. ad.....	Oj

The process does so much good and causes so little fatigue, that I withhold it only when life is threatened, or the disturbance is but slight. The washing having been thoroughly but gently done, I give enemata of charcoal water, well charged with the charcoal, and follow the dejections with enemata of sweet oil, to which has been added naphthalin, 15 to 20 grains to the pint. Subsequently the bladder is washed with warm water holding in solution two drachms of boracic acid to the pint, and one thirtieth of a grain of biniiodide mercury is given every two hours. If diarrhea is present the mercury

is not given; if it comes on the mercury is withheld, and naphthalin is administered in from five to seven grain doses every two hours. With an irritable stomach the initial dose should be smaller, till a tolerance of the medicine is established. Failing in this, I select benzoate of soda with ergot, and employ strychnine during the whole course of the disease.

For reducing fever I have found an excellent agent in the nitrate of ammonia. It was suggested to me by Dr. A. B. Stuart, of Santa Rosa, Cal., who with much show of reason ascribes to it still other virtues in the treatment of typhoid fever. It should not be employed with the mercury, nor with Labarraque's solution. Frequent washings of the stomach are not necessary as the first has already reached the seat of the disease so far as washing the stomach can; and subsequent morbid deposits are dislodged with sufficient frequency by the washing every second or third day. As feculent matter readily accumulates in the lower bowel, the enemata of naphthalin and olive oil are repeated once or twice a day, not forgetting the previous cleansing with charcoal water. Cleansing the bladder or medicating it with the boracic acid solution, is done as often as the condition of the urine indicates. Epistaxis, if serious, may be controlled at once by forcing tincture of benzoin well up the nostril with a small syringe. Injections of equal parts of milk and spts. of turpentine, thrown up well, control hemorrhage from the lower bowel, and act favorably in ulceration. But, as it is uncertain whence hemorrhage proceeds, I give by the mouth benzoate of soda with fluid extract of ergot, and Bartholow's pill of sulphate of copper, quinine and morphine alternately.

Now, while placing some reliance upon the medication by the mouth here presented, I attribute the abbreviation of the disease chiefly to the other mode of treatment. Not that the adoption of one to the exclusion of the other would prove efficient, but my experience leads me to believe that both combined will abort typhoid fever, if taken at the beginning, and at a later period would be attended with great success.

—A recent estimate shows that about one-fourth of the population of New York, Boston and London receive free treatment at the medical clinics; in Philadelphia, one-fifth, and in Liverpool over one-half the population.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF MARYLAND.

Stated Meeting, held May 5, 1887.

DR. HIRAM WOODS read a paper entitled, *Review of Some Recent Literature on Chloroform and Ether,*

the concluding part of which is as follows :

DR. SAYRE allows his patients to inhale only air which has passed through chloroform. He produces narcosis by giving from 15 to 30 drops. While I am unfamiliar with the inhaler used by Dr. Sayre, there has been in constant use at the Presbyterian Eye Hospital for some months an inhaler constructed on the same principle. All inspired air passes through a small sponge moistened with chloroform. I have seen chloroform used almost daily at the hospital for the past five years by the old towel-cone method. The first time that I used this inhaler, I was surprised to find my patient narcotized by about 20 drops of chloroform. Has this method any advantages over the old plan, or is it more dangerous? I have already given Dr. Sayre's opinion that it is safer because more chloroform must be given by the old method to produce anaesthesia, and there is more danger of the patient's system becoming saturated with it. I can hardly think that Dr. Sayre means to say that by the old plan a patient can inhale one atmosphere of pure air and another of chloroform. The inspired atmosphere is a *chloroform* atmosphere of greater or less saturation. There are several factors which will determine the degree of chloroform saturation. The most important are the amount of chloroform poured on the towel cone, the distance it is held from the patient's face, and whether the anaesthetizer moves it about or keeps it still. Chloroform vapor has a greater specific gravity than air; consequently it displaces air downwards. The farther it is held above the patient's face the more air it must displace, and hence, the more of its own antidote will it meet before it is inhaled. Hence it will be weaker when inhaled and have less physiological effect. The same course of reasoning will apply to moving it about and bringing it into contact with a greater amount of air, and to the amount poured on the towel. Rarely less than $\frac{3}{4}$ ss of chloroform are poured on the towel. If this is held *still* an inch or so from the

patient's nose and mouth, it is easily seen how he may be compelled to breathe an atmosphere which is almost pure chloroform, and so the system may become, as Dr. Sayre says, saturated with the anaesthetic. I do not, however, believe there is as great danger of saturating the system by the old method as Dr. Sayre implies. If the towel-cone is held at a proper distance (four to six inches) from the face and moved to and fro, undoubtedly more chloroform is used in producing narcosis. The excess has little, if any physiological effect. Air is its antidote, and it is the admixture with air which necessitates the extra amount of chloroform. The chloroform vapor must be absorbed before it affects any physiological function, and the air antagonizes it *before* it is absorbed. Hence, its action is modified all along the line, and if the large amount of air postpones narcosis, it must also lessen the influence of chloroform on the rest of the system. The advantage of the inhaler lies in the *certainty* which it gives as to distance and dose. Even a careful man may occasionally hold his towel-cone with its $\frac{3}{4}$ ss of chloroform very near the patient's nose, and force him to breath an atmosphere which can kill him. The danger of this is reduced to the minimum by the inhaler. We have seen that by *any* method of inhalation it is only a question of the degree of chloroform *saturation*. A definite amount (15 drops), poured on a sponge through which the same quantity of air passes at all times, gives the patient a *fixed and definite dose*, which can be repeated or not, according to the effect it may have. "If," as Dr. Sayre says, "any peculiar disposition or some other unknown cause" interferes with heart action, this small amount may easily be eliminated, and we have not given an unknown overdose.

A word may be said about the value of statistics. Dr. Weir based his defence of ether largely on the statistical argument. Dr. Gerster, on the other hand, would not admit its value because it is impossible to get all the facts. He knew of *five* ether deaths in one hospital which had never been reported. As to the contradictory evidence of statistics, there was a good example at the very meeting of the New York Academy at which Dr. Gerster's paper was read. Dr. Weir reported 1 death in 2158 cases in defence of ether. Dr. Knapp, also in defence of ether, reported from his own practice 3000 cases of chloroform anaesthesia and no accident. In Ashhurst's *Surgery*, Prof. Chisolm is quoted as having collected, up to 1877, 250,000 chloroform cases with 12

deaths, or 1 in 20,834. From other sources the average is put to be nearly one death in 23,000 from ether, and one in 2800 from chloroform. The latter is generally supposed to be near the truth. Part of the bad showing for chloroform is to be explained by the diligent search which is made for chloroform deaths, the readiness with which the blame is put on chloroform, and the equally great reluctance to blame ether if anything else can be found as a scapegoat.

Again, many deaths are unquestionably due to faulty administration. But this of itself is something of an argument for ether. It takes time to get experience, and comparatively few young men have a chance to get instruction in a hospital where chloroform is habitually used. Hence an anaesthetic which is "not so inexorably followed by disaster" if badly given, or improperly selected, is to be preferred for general use.

In estimating the value of statistics, doubt is sometimes thrown on the cases furnished by the eye surgeon on the ground that he does not have to use much chloroform in his operations. If the *Medical News* is correct in its interpretation of Dr. Knapp's "primary anaesthesia" (*i. e.*, "before profound narcosis"), his remarks would seem to give support to this assertion. I think, however, that Dr. Knapp means the *first profound narcosis* which is induced. In other words, that he has seldom to renew the anaesthesia on account of his patient waking up. It is a common thing to see the arms drop to the sides, and apparently total relaxation, while the slightest touch of the cornea will be followed by spasmodic closure of the lids. With the exception of the rectum and female genital organs, operations on the eye probably require deeper anaesthesia than those on any other part of the body. The chloroform deaths which are absolutely unavoidable are those which come from heart failure. These usually occur *early in the anaesthesia*; either during the stage of muscular rigidity or at the first appearance of relaxation. The eye-surgeon is as apt to have these as any one. He does not, however, run the risks of prolonged anaesthesia which the general surgeon does. These risks I honestly believe depend, as a rule, more on the anaesthetizer than on the anaesthetic. Even if ether be used, its primary effect of stimulation soon gives way to its secondary effect of sedation as the dose is increased, and it has to be given with extreme care. The deaths in *prolonged anaesthesia* do not generally occur suddenly, but slowly from embarrassment of the respiration and gradual failure of the heart. Important

factors which must determine the result in such cases of collapse are the ability of the anaesthetizer to detect the first and slightest signs of danger, and the character and promptness of the means which are used for resuscitation.

In conclusion a few words may not be inadmissible on the preparation of the patient for anaesthesia and the treatment of collapse. We have seen that with both ether and chloroform there is danger of sudden death from heart paralysis. To sustain the heart over the period of anaesthetic depression is the problem. The oldest and most common practice is to give from $\frac{3}{8}$ s to $\frac{3}{4}$ of whiskey twenty minutes to half an hour before anaesthetization. Objection has been made that the secondary effects of alcohol are depressing. Unless the operation be a very long one, this is hardly a strong argument against its use, because the anaesthetic is administered during the stage of stimulation. More forcible objections are (1), that the whiskey is given by the stomach and may produce vomiting if it is not all absorbed, and (2) that it may not be absorbed rapidly enough to have effect. To overcome these, we want something which will stimulate the heart and yet will not have to enter the stomach. Such an agent many surgeons think is found in morphia. Its primary effect in small doses subcutaneously is to stimulate the heart. Then again its sedative secondary action helps the anaesthetic, of which a smaller quantity has to be given and largely prevents the vomiting and suffering which is incidental upon the recovery from an anaesthetic. To the morphia (gr. $\frac{1}{2}$ to $\frac{1}{4}$) a small amount ($\frac{1}{16}$ gr. to $\frac{1}{8}$) of atropia is added. An editorial in the *Medical News*, Vol. XLI, No. 12, explains the use of atropia by quoting the demonstration of Vulpian: "The excitability of the pneumogastric is increased by anaesthetic agents—whence the vomiting and sometimes cardiac arrest. Morphine, while it increases the anaesthetic action, does not to any considerable extent lessen the effect on the pneumogastric nerve; but atropine by removing the inhibition exerted by the vagus, removes the most important source of danger." There is abundance of clinical evidence to support the administration of morphine and atropia before the administration of anaesthetics. It seems to accomplish all that alcohol can, and to do more: prolong anaesthesia and lessen the danger of vomiting.

There are only one or two points in reference to collapse to which I would allude. One is that the best evidences of approach-

ing trouble are to be gotten from the condition of the respiration, the action of the pupil and the complexion. If the first warning comes through the pulse the trouble is usually one for which we can do little or nothing. If the heart once stops, it is generally for good. The best and indeed only treatment for heart failure of this kind is the administration of a heart stimulant before anæsthetization is commenced in hopes of preventing collapse altogether. Even then it will sometimes occur although more rarely than if nothing at all is given. I know that there is often a *gradual* weakening of the pulse which portends danger; but this is accompanied by shallow and slow respiration and pallor of the face. These latter usually precede the weakening of the pulse, and should have the anæsthetizer's attention. The least change observed in the complexion or depth and regularity of respiration demands prompt treatment. The same may be said for the condition of the pupil. If it dilates while the patient is inhaling the anæsthetic or during narcosis, means of resuscitation should at once be used.

Promptness in interfering is all important. This was one trouble with the first case narrated by Dr. Packard. After the radial pulse became weak, the operation of perineal section was continued and efforts to resuscitate postponed because some one imagined the pulse in the *posterior tibial artery* was good.¹

The reporter of this case also criticises the *suffocating manner* in which a large amount of chloroform was given by a "raw-dresser," and the fact that the man was treated for suffocation by tracheotomy instead of for heart failure. Had he been treated for the latter trouble, he believes "the chances for recovery might have been increased."

Next to *promptness* on the *slightest evidence* of trouble is *position*. The patient should be turned head down. I mention this specially because in some of the reported deaths it was evidently omitted. The head should be kept down during artificial respiration if this latter is necessary. In the chloroform cases at the Eye Hospital during the past six years, I have seen many patients with pallor and bad respiration revive as soon as their heads were lowered. In only two was artificial respiration necessary. One was a boy of 12 and the other a feeble old man of 84, with mitral regurgitation. Prof. Chisolm, whose large experience is known, tells me he has never seen a

patient fail to respond if inverted on the first appearance of *pallor* and has never had to resort to artificial respiration. As to hypodermic injections of stimulants, they are, it seems to me, only useful if the circulation is good. But with a fair circulation the above means are generally sufficient. With a very feeble, or no circulation, I doubt if the injections are even absorbed. In some reported cases from collapse from *ether*, I notice that more ether has been injected—probably on the ground of its primary effect being that of a cardiac stimulant. This seems to me to be wrong. Alcohol also is a stimulant; yet no one would inject more whiskey to revive a man who was dead-drunk. The case seems to me to be the same with ether. If it is absorbed at all, it can only add to the collapse. Atropia or ammonia would be the proper remedies, if any would be useful.

In the foregoing I know I have given no facts that are either new or original. From time to time the subject of anæsthesia comes up for discussion among all surgeons. The papers from which I have largely drawn in the preparation of this put this discussion on a new basis. It is now not: "Is one anæsthetic safer than another;" but "what are the clinical indications which are to be our guides in making the selection!" This method of discussing the subject is comparatively new.

Discussion.

DR. G. J. PRESTON said he felt very much interested in the paper of Dr. Woods. He remembered a discussion in this Society a few years ago, when chloroform was decided to be the better agent. The physiological action of the two drugs is an important factor. With chloroform the effects are sudden. With ether we can see the danger coming. The fact that oculists have been so successful with chloroform is due to the stimulating effects which chloroform first produces and that the operations are short. He thinks that the cases should be selected for the anæsthetic. Where there is bronchitis and other affections of the air-passages chloroform should be given. For prolonged operations without these complications, ether is best.

DR. J. G. WILTSHERE said he was very much pleased to hear the paper. Chloroform depresses the heart, and stimulants are indicated. If chloroform inhibits the action of the pneumogastric nerve, does not atropia stimulate the excito-motors?

DR. ROBERT JOHNSON said such discussions should come up every year, because administrators of anaesthetics become so taken up with the one that they use, that they become careless as regards their danger. He called attention to two cases. One was a case of hare-lip. He gave chloroform, and the child died on the fourth day with capillary bronchitis. The other case was a man with Bright's disease, to whom he gave ether, and he made a good recovery. Atropia stimulates the respiratory centers; amyl nitrate is also a good stimulant.

DR. J. T. SMITH said the subject under discussion is an old one, but it is constantly recurring. The tide fluctuates in both directions; when men of great experience give such diverse opinions, both agents must be good. Ether is now more used than formerly, so more deaths have been reported. The safety of anaesthetics in ophthalmic practice is due to the fact that the operator is at the face of the patient and can observe more clearly any changes that might take place. He was glad that the subject was brought forward for discussion.

DR. W. B. PLATT said ether had won its way into England, where at one time prejudice was greatly against it. Chloroform is used more in Germany. Morphia was advocated by Prof. Tieste, of Leipsic. It was thought by its use less anaesthesia would be required. There will always be some cranks against the use of one or the other of the anaesthetics, just as similar individuals oppose vaccination, for example. He thinks that we will soon settle down to the use of ether again.

DR. G. H. ROHE said that he had had a good deal of experience with ether, and never had failed to anaesthetize his patient. He had one patient who died on the third day after operation for vesico-vaginal fistula, from pneumonia. What the cause of the pneumonia was he could not say. He now always has patients well protected by covering during ether administration. He never believed in Dr. Emmet's statement about the danger of ether in Bright's disease. He believes it is not good to give it in bronchitis. Ether increases the bronchial secretions, and the accumulations may be so great in the lungs as not to be thrown off. He believes that Dr. Sayre's method of giving saturated chloroform vapor is a dangerous one. Death usually takes place upon the addition of more chloroform. Both ether and chloroform depress the heart, as sphygmographic tracings have shown. He has not given alcohol for ten years, but uses

morphia and atropia before the anaesthetic. It reduces the reflex irritability of the larynx to the ether vapor.

DR. W. P. CHUNN said he had given both anaesthetics and never saw a life lost. Five or six years ago chloroform was in more common use than ether. Chloroform is more powerful in its effects and likewise more rapid, consequently more dangerous. Even if the chloroform is stopped before the muscles are relaxed anaesthesia will increase for a time. Chloroform in certain cases is fairly safe. A great deal depends on how it is given. In regard to ether he had never seen an accident.

DR. W. H. NORRIS thought that a great deal of the trouble which comes on from anaesthetics is due to the quality of the drug. He had given chloroform many times and he had only seen one case where it acted badly. Chloroform was used during the late war by all army surgeons and they agreed that it was the best anaesthetic. He had had little experience with the use of ether. He related a case of puerperal convulsions where he gave four ounces without effect. He asked the opinion of the members as to the use of the combination of chloroform and ether.

DR. W. WINSEY said, as to which is the safer of the two drugs, that those who use them will be guarded by the effects of either. He prefers ether. A patient under the influence of an anaesthetic is never free from danger, the administration of which should be entrusted to competent hands.

DR. C. W. MITCHELL said he had given both agents for the past seven years—though chloroform has been in more general use. He began its use at the Presbyterian Eye and Ear Hospital. He finds now that ether is more generally given than chloroform. Anaesthetics should be given as other drugs are; ether is not comparatively safe nor comparatively dangerous. Care should be practiced in the selection of cases. He had seen two deaths from the effects of each drug. The fact of concentration should be considered in ether as well as in chloroform. The bronchial secretions increased by the influence of ether, should be allowed to escape by turning the head to one side and pulling the lips apart by placing the fingers in the patient's mouth. The snoring of ether is the result of the accumulation of mucus in the pharynx. Of the two deaths from chloroform, in the first case the drug was given by an inhaling apparatus and only $\frac{2}{3}$ of one teaspoonful was used; in the second case a towel was used for the administration and the chloroform was only poured on once;

both patients died suddenly. In the first case of death from ether the patient died on the ninth day from pneumonia. He thinks that chloroform would have been better. The second case was a patient with cavities in both lungs, upon whom laparotomy was performed. The fifth day afterwards acute pulmonary trouble came on, producing severe pulmonary hemorrhage and finally death. Kidney trouble renders both drugs dangerous.

DR. L. E. NEALE was glad to observe the practical turn which Dr. Mitchell had given to the discussion in trying to select special anaesthetics for special cases and special conditions. Just here he thought it interesting and important to note that chloroform had thus far held the lead as an anaesthetic during parturition, and out of many hundred thousands times it has been given not a single well authenticated case of death is on record. This was possibly explained by the physiological hypertrophy of the heart preventing cerebral anaemia.

DR. L. McLANE TIFFANY said the question is not between chloroform and ether, but when we have to produce anaesthesia, how can we best bring it about? It is wrong to think we have only two drugs to select from. The recognition of the disease, the choice of the remedy and its application are the essential points to be considered. There is no such thing as a best anaesthetic. Then it comes to the indications; contra-indications to the use of ether rest largely in the lungs. It has occurred to him to change the anaesthetic even while operating. Chloroform is better in such conditions. He related a case where he removed a tumor from a patient's neck. He began anaesthesia with ether, the secretions from the bronchial tubes began to pour out so fast that the ether was discontinued and chloroform used instead. The patient did well after the change. In the aged, say 70 years, he always gives chloroform, and also in the young. In all other cases, other things being equal, he gives ether. He then related a case where the patient had both bronchitis and heart trouble. He gave chloroform and the patient did well. He always precedes the anaesthetic with morphia and atropia.

DR. J. E. MICHAEL said it is fortunate that this subject does recur for discussion. The tide is very apt to turn with experience. He is not given to ether alone nor to chloroform, for experience shows that both are dangerous and must be carefully watched. In both cases of death from chloroform reported by Dr. Mitchell there was found disease of the kidneys. If other things are equal in a pa-

tient with kidney disease he does not know which he would choose of the two anaesthetics; where there is much bronchial secretions ether is contra-indicated. Chloroform is best in tracheotomy. Select the anaesthetic according to the indications. The death from ether in the case related by Dr. Mitchell was caused by hemorrhage which it excited. These discussions will compel us to look at the matter from a clinical standpoint. The tendency seems decidedly towards reviewing the ground and to determine which is the better agent to use under certain circumstances.

DR. R. WINSLOW said that he was struck while abroad by the faulty methods employed in Billroth's clinic in administering the A.C.E. Mixture. It was frequently given in the upright position. One patient died from such methods of administration.

DR HIRAM Woods, in conclusion, said: What has been said by the gentlemen who have spoken recalled a remark he heard Dr. Tiffany make in this Society about four years ago, when this same subject was under discussion. He said: "No matter what anaesthetic you give you put the patient in a position greatly resembling death, and it always needs care to avoid stepping over the line." The main stay in the use of any anaesthetic is the recognition of danger. Drs. Preston and Smith have alluded to the pallor of the face as being more apt to be noticed when the operation is about that part of the body, and this, to an extent, explains why the oculist does not have many accidents. Another reason is that it is impossible for the operator to be at work on the eye while the anaesthetic is being given. Dr. Chisolm was the first he heard give this reason. When the operation begins, giving of the anaesthetic stops. If the patient awakens the anaesthetic has to be renewed, the operator stops, and as he wants to get back to his work as soon as possible, there is not much danger of the patient getting an overdose. Dr. Smith has also alluded to operations about the peritoneum as being specially dangerous. In the remarks made by Dr. Weir at the New York Academy, deaths during operations on the peritoneum are excluded by the speaker from deaths due to anaesthetics, because, I suppose, any injury to the peritoneum is so apt to be followed by shock. He thought Dr. Wiltshire must have misunderstood him, or he must have used the wrong word. Vulpian's experiments showed that anaesthetics increase, not decrease the inhibition of the vagus, hence atropia antagonized them. As the doctor says, part of the good effect of atropia

undoubtedly comes from the direct stimulation of the cardiac ganglia. Dr. Johnson's case of capillary bronchitis following the use of chloroform in an operation for hare-lip and cleft-palate is open to the objection that the operation involved the respiratory tract. Dr. Gerster thinks that all such operations should be excluded when we are speaking of the effects of anaesthetic agents on the lungs. The reason for the occurrence of lung troubles after operations was thought by Dr. Weir to be due to free use of antiseptics in surgical practice and to the prolonged exposure of the patient. Dr. Platt says the use of morphia is not as common abroad as it formerly was. It has been found that large doses depress the heart and add to the danger. This is just what one would expect from large doses. The larger the dose the more transient is the stage of stimulation and more profound the stage of depression. The dose should be small, not over $\frac{1}{2}$ gr. to $\frac{1}{4}$ gr. at most. Drs. Mitchell and Rohé each report fatal cases of pneumonia after the use of ether. Dr. Mitchell says the pneumonia is always catarrhal. One of the cases reported by Dr. Gerster was lobar pneumonia in the stage of engorgement. Neither of these gentlemen think ether is contraindicated in nephritis. He knows nothing of ether experimentally, but a reference to Dr. Gerster's paper in the *Medical Record* will show that many cases have occurred which show that ether is very dangerous in Bright's disease. He could not see how Dr. Rohé can find, in Dr. Sayre's remarks, teaching which advises the administration of a saturated chloroform atmosphere. Dr. Sayre gives a summary of the principles he advanced in 1876, which are substantially the same as those which he holds now. He is not acquainted with the article which Dr. Rohé says was published by Dr. Sayre some years ago in which he recommends the administration of a saturated vapor. His present paper and the extract he gives from his teachings in 1876 are directly against such practice. He agreed with Drs. Rohé and Chunn that many of the chloroform accidents occur just after more chloroform is poured on the towel. He believes this is so, because the anaesthetizer often puts the towel with the fresh chloroform just where he had it before. Dr. Sayre's method of using an inhaler prevents this accident from occurring. As regards Dr. Pancoast's case he did not wish to acquit chloroform of its share of the work. All that he claimed was that it is clearly shown that Dr. Pancoast gives chloroform for slight operations in a manner which many recognized authorities

consider wrong. If the interview from the daily papers which he quoted is correct, the man died apparently from shock due to the performance of a slight but painful operation during partial anaesthesia. There was of course more danger under the chloroform than there would have been without any anaesthetic. There was also more danger than there would have been had the chloroform been pushed to full narcosis.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, June 22, 1887.

H. AUGUSTUS WILSON, M.D., in the chair.

DR. B. F. BAER, read a paper on
Cystic Enlargement of the Vulvo-Vaginal Gland.

This case is specially interesting because of the size of the tumor, and of a mistaken diagnosis which had been made.

The patient, thirty-six years of age, married, but sterile, presented herself at the Polyclinic, and stated that she had "a rupture which would not go back," although she had been kept upon her back as long as two days at a time, and had been bandaged and compressed until she could no longer endure the suffering. Truss after truss had also been adjusted, but all to no purpose. On inquiry, it was learned that about one year before coming under observation, she noticed a small lump near the posterior commissure of the vulva, corresponding with the location of the vulvo-vaginal gland. It was painless, and gradually increased from below upward. At the time she presented herself it was as large as a duck's egg. During the first nine months' of its presence it produced no symptoms, except slight inconvenience from the swelling, but about three months before coming under my notice the tumor began to occasion difficulty on account of its size, and the friction produced in walking, and from a most interesting symptom, namely, obstruction to the flow of urine. During the act of micturition the urine would flow regularly for a short time, and then it would suddenly cease, to be followed by great pain. By an effort she could again start the flow, and then it would again abruptly stop. During the last few months, the tumor had so increased in size as to approach the symphysis pubis.

On examination, I found an elastic tumor making compression upon the urethra, and the mechanical interference was at once ex-

plained. When the bladder became full, the effort to empty the organ overcame the obstruction from pressure of the mass for a time, but as soon as the straining ceased the urethra would be again suddenly closed by the tumor. It required considerable force to displace the tumor so as to see the urethra. The tumor was not tender on pressure, and there were no signs of inflammatory action about it. There was marked fluctuation, and its size was not affected when the patient was in the recumbent position. The inguinal canal was empty, and there was nothing in the shape or character of the tumor which would indicate that it contained intestine. The diagnosis lay between hernia and hydrocele of the labium majorum, both of which are exceedingly rare, and abscess or cystic enlargement of the vulvo-vaginal gland, although the tumor was much larger than any I had ever seen from the latter cause. I advised its removal by extirpation, because my previous experience in the treatment of this disease has taught me that radical measures are necessary. The patient entered the hospital, and in the presence of the Polyclinic class I proceeded to operate. An incision was made at the lower and inner surface of the tumor, my intention being to try to enucleate it entire. But the cyst was ruptured by the effort, and a yellowish fluid escaped of the consistency of thick cream, but without odor. I next passed my finger within the collapsed sac, and found that it occupied a very extended surface—from the upper portion of the labium down to the ischio-rectal space. The secreting surface or membrane was very thick. It was not likely, therefore, that anything short of removal of the gland would effect a permanent cure.

This has been my experience with these cases, as I have said. But hemorrhage is sometimes great, and this has caused most authors to advise simply evacuation of the fluid, and injection or packing with iodine, or some other agent, to destroy the surface. It will be remembered that the gland is in close relation with the transverse perineal artery below, and with the bulb of the vestibule at its upper extremity. When, however, the organ is diseased and hypertrophied, the blood-vessels become greatly enlarged, as during pregnancy, making this locality much more vascular. Then the gland, as the result of its increased size, extends much further up, and becomes surrounded by the network of veins called the bulb of the vestibule, and there is closer contact with the vessels at the lower surface of the gland.

In pursuance of my original plan, I en-

deavored to separate the sac from its close attachments with the handle of the scalpel; but this I was unable to do, and I was compelled to dissect it out with the edge of the knife. The extent of surface was much greater than I had anticipated, even, and the hemorrhage very considerable; that from the arteries was controlled by ligation, but I found great difficulty in checking the venous. Hot water and compression failed, and I was finally compelled to pack the cavity with pledges of cotton saturated with Monsell's solution, and supplement this with pressure applied by vaginal tampon and with a compress held in position by means of a "T" bandage. The dressing was permitted to remain in position twenty-four hours (there being no untoward symptoms), when the bandage and compress were removed. I now ordered the constant application of lead-water and laudanum, which gave great comfort, as the parts were hot and somewhat swollen. Very little pain was complained of, however.

The next day a part of the packing was removed, and a little more each day after—as much as came away easily. Irrigation with carbolized water every four hours, and the constant application of the lead-water and laudanum, constituted the after-treatment. At the end of a week the last pledge of packing came away, and in another week the patient left the hospital, the wound having almost entirely healed. I was much gratified with the rapid recovery, for I feared that there might be extensive sloughing and granulation.

The operation occurred some months ago. The patient is entirely cured.

In simple retention cysts I have succeeded in curing the case by incision and packing. In abscess of this gland, treatment of that kind will usually be sufficient. One word in regard to the cause of these cysts. In the present case I do not know the cause. A common cause is injury from coition or from childbirth, the former most commonly. It sometimes occurs as a result of the first coition. There is no doubt that some of the cases have a gonorrhoeal origin, but I do not believe that this cause is as common as is often stated.

Discussion.

DR. J. C. DA COSTA said: I remember distinctly two or three cases seen within a few months. In one case a large quantity of fluid was removed. Another case was of chronic inflammation in the left labium. I opened it, and treated it in the ordinary way, but it rapidly returned. I then thought of dissecting it out, but fearing just what Dr.

Baer met with, tried another method of treatment, which has succeeded well in some cases. After emptying the cyst, I took a curette and scraped the inside; then, with a swab, applied a strong preparation of iodine, consisting of pure iodine with iodide of potassium dissolved in glycerine. I next took two or three deep sutures, bringing the walls in close contact, and in that way succeeded in obliterating the whole sac.

DR. J. B. DEAVER said: With regard to the causation of these tumors of the vulvo-vaginal gland, my experience is not in accord with that of Dr. Baer. I have not found injury a common cause. The majority of cases which I have seen have apparently arisen without any special cause. I cannot understand the difficulty experienced in the arrest of hemorrhage. I should simply pack the sac, and stitch the edges of the wound over it.

DR. W. S. STEWART said: I have had some experience in operating on these cases. I do not use a general anæsthetic, but prefer to employ cocaine solution. I find that cocaine, in from a five to ten per cent. solution, has an astringent effect. In a case in which I employed this in the removal of

one of these glands, I had expected hemorrhage, for the arteries in this location are numerous, and the veins valveless. During the removal of the gland I had no difficulty in controlling the bleeding by applications of the solution. After the operation the use of sutures brought the surfaces accurately together, and there was no subsequent hemorrhage. In order to keep down inflammatory trouble, I made applications of phenol sodique.

DR. BAER said: The arrest of hemorrhage would not seem to be a difficult matter where the gland is of normal size, but when the organ increases to a large size the vessels become much larger. If Dr. Deaver had seen the efforts which I made to check the hemorrhage by pressure, I think that he would have agreed with me that it was difficult to control. I had feared that I might have a granulating surface and some sloughing. The wound, however, healed nicely, and I have not had a better result under the best antiseptic precautions. Cocaine would not have arrested the bleeding, for the hemorrhage did not come from the incision, but from the vessels beneath the tumor.

EDITORIAL DEPARTMENT.

PERISCOPE.

Operation for Intra-Cranial Hemorrhage.

On June 21 Professor Thorlley Stoker, of London, operated on a man about 50 years old, who had sustained an injury to his head on June 12. His symptoms pointed to a fracture of the skull with intra-cranial hemorrhage engag-
ing the motar area of the right hemisphere. He had left hemiplegia, was comatose, and had such interference with the functions of respiration and deglutition as pointed to the existence of pressure at the base of the brain. He was getting worse, and sinking rapidly. Two large trephine openings were made over the parts of the motor area indicated by the paralysis, and a clot, due to rupture of the middle meningeal artery, was removed without much difficulty. It was an inch thick, and over four inches in diameter. The patient recovered consciousness and partial use of his arm and leg while on the operating table. In three days he had fully recovered all his faculties and has since progressed uninterrupted towards health. The case was treated all through with antiseptic measures.

Examination of Urine by Country Practitioners.

Dr. James Ware, of Marksville, La., in a paper read before the Louisiana State Medical Society, and published in the *New Orleans Medical and Surgical Journal*, July, 1887, says:

"Within the last few years I have been very much impressed with the necessity of examining the urine as a means of diagnosis. It is to be supposed that city physicians, whose opportunities for study and improvement are so great, never leave this important matter undone; but in the country I believe the urine is examined systematically by very few physicians. Even in cases of disease of the urethra, bladder, or kidneys, it is not always done; and frequently, when the necessity of it is felt, the urine is bottled and sent to some town or city where the necessary knowledge and instruments may be found. The risk of changes occurring in the fluid by time, temperature, etc., always ought to prevent the adoption of this method."

"The lack of practical skill on the part of country practitioners in important surgical

cases, and in cases of gynecology, and in those instances of profound disease requiring a high order of mind and long experience to diagnose correctly, I say the lack of skill here on our part is certainly to a great extent excusable. What we want to know is how unerringly to tell the common diseases of the country, and then successfully to treat them.

"It would undoubtedly be better for us and our patients to know how to treat properly, and bring to a favorable issue, the varied forms of malarial disease, the ordinary maladies of inflammation, the common diseases of women and children, than to be able skillfully to perform ovariotomy or lithotomy. Many country physicians treat these diseases remarkably well. As a class we are acute, industrious, and observing, and receive less for what we do than any other body of intelligent men in the world."

He urges and illustrates the importance of knowing how to examine the urine, and of doing it:

"In my opinion the time is rapidly approaching when physicians will consider it their duty every year carefully to examine the urine of every member of all the families under their medical charge. Conscientiousness on our part and increasing knowledge on the part of the people will demand it. It must be done for the same reason that we vaccinate—to protect against the inroads of fatal disease. The value of an early discovery of many diseases is indisputable. I ask you to look at tables prepared by medical examiners for life insurance companies, and note the large percentage of cases of incipient Bright's disease and diabetes discovered by this necessary examination.

"My principal object in writing these few pages is to call attention to the number of times that the urine is left unnoticed in cases where it should be closely examined. This paper is designed, not for those who know more of this subject than I do, but for those who know less. 'I came to call, not the righteous to repentance, but sinners.' Dr. Graves said that he wanted as his epitaph: Dr. Graves—he fed fevers. I want mine to read: Dr. Ware—he examined the urine."

Insanity and Oophorectomy.

Dr. William M. Leszynsky, in a paper in the *New York Medical Journal*, June 25th, 1887, says:

In only a small percentage of the insane can we discover a somatic basis for the mental derangement, although a multitude of abnormal physical conditions have been

credited with a causative influence in the production of insanity.

Insanity at times occurs in persons who are the subjects of phthisis, chronic nephritis, alcoholism, syphilis, and numerous other morbid conditions.

That the existence of any of these diseases does not render such individuals exempt from the development of mental symptoms is unnecessary to mention. If they do not act as an exciting cause, they are usually contributory elements in aggravating or increasing the gravity of the situation.

As is well known, the psychical causes are generally the predominating factors in the production of insanity, the constitutional predisposition and an unstable nervous organization being the fertile soil for its development.

The fact that the exciting cause of an attack of insanity can occasionally be justly attributed to reflex irritation arising from uterine or ovarian disease, cannot be questioned.

The premature and indiscriminate removal of the ovaries in cases of insanity and other neuroses has of late become so frequent and flagrant a procedure as to demand an emphatic protest against such reprehensible measures and such illegitimate practice.

He then gives the history of two cases in which the ovaries were removed for insanity, death following in one case, and the other patient continuing to be as insane as ever.

He adds: These two cases that have been under my immediate supervision amply demonstrate the fact that the removal of the ovaries was an illegitimate and unjustifiable operation, and wholly unwarranted under the circumstances.

Practical utility and conservative principles should never be sacrificed on the altar of presumable brilliancy and self-glorification. The jeopardizing of human life and the nullification of physiological functions should never be instituted through irrational enthusiasm.

Physicians who are dominated by their specialistic proclivities, thereby being frequently misled into irrationality in their procedures and methods, are, fortunately, not a preponderating element in the ranks of the medical profession.

If in any case of insanity the existence of a pathological condition of the uterus or its appendages can be unequivocally demonstrated, and such morbid state be by logical process and clinical evidence indubitably proved to be either the exciting cause or a preponderating contributory influence in the

production of the mental derangement, then, and only under such circumstances, after all other methods of treatment have been exhausted, can surgical interference such as oophorectomy be considered a legitimate procedure.

A Sexless Being.

In the *Gazette Médicale de Paris*, Dr. Polaillon describes a remarkable case of malformation in a patient aged 31, who died of hepatic abscess in the Hôpital de la Pitié. The patient had been a tailor, then a general dealer. He presented the external appearances of a woman, being completely beardless, and bearing small but distinct mammae. His voice was feminine, his stature low, and he was a great coward, displaying much mental perturbation at the prospect of dressing his abscess, and shrieking during the process. The pelvis was broad, and quite of the female type. From a distinct and prominent mons veneris ran two cutaneous folds, corresponding precisely to labia majora; they joined posteriorly in front of the anus. The penes was hardly an inch and a half long, but perfectly formed, and the relations of the corpora cavernosa, glans, and urethra were normal. The prepuce was long, and formed a phimosis. The scrotum was small and perfectly empty, and there was no depression or cavity representing a vaginal or vulvar orifice. The most remarkable feature of the case was the entire absence of testes, spermatic cord, and vesiculae seminales. The neck of the bladder was of the male type; no trace of ovaries or uterus existed. The rectovesical pouch was very deep.

Boracic Acid for Leucorrhœa.

From the excellent results which are yielded by boracic acid packing in chronic suppurating otitis, Dr. N. F. Schwartz (*St. Louis Courier of Medicine*, June, 1887) was led to employ it in a case of leucorrhœa which had resisted the most persevering use of the ordinary remedies. The experiment was successful within a fortnight, and the patient has remained well for several months since. Dr. Schwartz states that he has been equally successful in a number of other cases. His manner of using it is as follows: Having first irritated the vagina with water at as high a temperature as can well be borne by patient, a cylindrical speculum is introduced, and the vaginal walls very carefully dried, first with a soft sponge and then with absorbent cotton. This done, boracic acid in crystals is poured into the mouth of the speculum, and pushed up against the uterus and vault of the vagina

with a clean cork caught in a uterine sponge-carrier, sufficient acid being used to surround and bury the intravaginal portion of cervix, filling the upper part of vagina. A tampon of absorbent cotton is then firmly pressed against the packing, and held *in situ* until the folds of the vaginal walls close over it as the speculum is withdrawn.

This should be allowed to remain three or four days, or even longer, as after this time there still remain some undissolved particles of the acid, nor will the tampon seem at all offensive. The ostium vaginæ, if examined in twenty-four hours, instead of being smeared with the leucorrhœal secretion or discharge, presents a clean appearance, and bathed in a watery fluid, which begins to appear several hours after the packing has been placed, and in his cases this was the only discharge noticed afterwards.

However, a second or even a third repetition may be necessary, but in none of his cases, numbering nearly a score, has he found more than a second packing called for, and in many one sufficed; and in no instance has its use occasioned pain, not even inconvenience.

Apomorphine and Morphine in Whooping-cough.

Dr. P. F. Fedoroff states that he has obtained good results in whooping-cough by the internal use of the following mixture:

R. Morphin, muriat.....	gr. ij
Apomorphin, muriat.....	gr. j
Acid. muriatic.....	3 ss
Aq. destil.....	3 viij
M. D. S., a teaspoonful four times a day.	

The paroxysms are lessened both in number and frequency after the few first doses of the mixture.

New Views on Prurigo.

Dr. Tom Robinson, in the *Jour. of Cutaneous and Venereal Diseases* for July, 1887, sums up his observations in the following postulates:

- I.—There is not such a disease as *prurigo*.
- II.—That all cases of itching skins have a recognized and discoverable cause.
- III.—That all the group of symptoms which are known as prurigo are the result of scratching, and are simply symptoms.
- IV.—All scratched skins which have advanced to an elephantoid state, and which have set up enlargement of lymphatic glands, are beyond the reach of remedies or hope.

V.—That the pruriginous skin of children has its origin in developing hair follicles, which progresses from birth to puberty, when it stops.

VI.—That excessive itching does not occur in those situations where the hair grows luxuriantly.

VII.—That what is known as winter prurigo is due to imprisoned hairs.

VIII.—That an irritable state of the skin is always associated with an irritable state of the mucous and synovial membranes.

Localised Facial Sweating.

Dr. N. A. Parfianovitch, of Kaluga, relates two instances of this rare affection, one occurring in his own person. About six years ago he went through an attack of typhus fever, complicated with suppuration of the right parotid gland; this left behind it a considerable impairment of sensibility in the masseter muscles and the skin of the right cheek, with marked liability to localised sweating. The perspiration, which is so profuse that large drops run down the cheek, is limited to the right temporal region, and invariably occurs during mastication. Another case is that of a lady, who also had a right parotid abscess, with subsequent formation of a deep scar, and who sometimes suffers from sweating limited to her cheeks, and coming on only on mastication.—*British Med. Journal*.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT LITERATURE.

—Ticknor & Co., Boston, announce "Home Sanitation," a manual for housekeepers, by the Sanitary Science Club of the Association of Collegiate Alumnæ, edited by Ellen H. Richards and Marion Talbot. The object of this manual is to arouse the interest of housekeepers in the sanitary conditions of their homes, and to indicate the points requiring investigation, the methods of examination, and the practical remedies.

BOOK NOTICES.

[Those sending Books for Review will oblige our readers by always stating publication price. In the case of Reprints, authors are requested to state the conditions upon which copies may be obtained by those of our readers interested in the subjects treated.]

Transactions of the American Gynecological Society, Volume II, for the Year 1886. 8vo, pp. 516.

It is impossible, in the space which we can spare, to do more than notice this volume of transactions, which contains a large number of elaborate papers by the most eminent gynecologists in America, and a very hand-

some phototype of the late Dr. Albert H. Smith, of Philadelphia. As unusually interesting, we might mention a paper on The Influence of Maternal Impressions, by Dr. Fordyce Barker, which, with the discussion, occupies forty-five pages of the volume. The general conclusion was in favor of the belief—which has often been scouted as absurd—that strong maternal impressions may induce physical changes in the fetus *in utero*.

For other very interesting matter, we refer our readers to the book itself.

A System of Gynecology. By American authors. Edited by Matthew D. Mann, A.M., M.D., Professor of Obstetrics and Gynecology in the Medical Department of the University of Buffalo, N. Y. Vol. I, Illustrated. Royal Octavo, pp. 789. Philadelphia: Lea Brothers & Co., 1887.

This magnificent volume not only contains a summary of the present knowledge in regard to the various subjects of which it treats, but it is also a splendid monument to the achievements of American practitioners in this department of work. There is probably no field of medical practice in which American skill and ingenuity have attained such signal results as in that of Gynecology, and the volume before us, with those which are to follow may be regarded as especially an American work for American readers. At the same time it will doubtless become indispensable to gynecologists all over the world.

The Curability of insanity and the individual treatment of the insane. By John S. Butler, M. D., late Physician and Superintendent of the Connecticut Retreat for the Insane, etc. 6¾x5 inches. Pp. 59. New York and London: G. P. Putnam's Sons, 1887.

This admirable little book contains the earnest plea of an experienced man for careful and kindly individual treatment of the insane. The whole scheme of the book is founded upon the idea that insanity is a disease of the brain. "Whoever," the author quotes from Sir James McIntosh's Life of Robert Hall, "has brought himself to consider a disease of the brain as differing only in a degree from a disease of the lung, has robbed insanity of that mysterious horror which forms its chief malignity." With this as a guiding thought, Dr. Butler has written a book so full of wise council and humane purpose that we can with assurance recommend it heartily to all who have dealings with the insane.

THE
Medical and Surgical Reporter.
A WEEKLY JOURNAL,
ISSUED EVERY SATURDAY.

N. A. RANDOLPH, M. D.,
 CHARLES W. DULLES, M. D., } EDITORS.

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A correct statement of the circulation of THE MEDICAL AND SURGICAL REPORTER will be published in each number. The edition for this week is 5,000 copies.

**THE TREATMENT OF VARICOSE VEINS
 OF THE LEG.**

Ordinarily, persons afflicted with varicose veins of the leg expect nothing more than some amelioration of their condition, or some means of getting along with it. The trouble is regarded as incurable, just as a hernia would be. For a hernia a truss is worn, and for varicose veins an elastic stocking is generally used. In many cases nothing whatever is done for varicosities of the leg, and the sufferer has to bear the distress, and run the risks of his condition as best he can.

If the veins are not very much enlarged, this may not be an unwise plan. But in a case in which the varicosity is very pronounced the risks are too great to warrant letting the veins alone. The risk of ulceration, of rupture and hemorrhage, of phlebitis, of extension of the varicose condition, is so great that something ought to be done.

This something should consist in the adoption of proper medicinal, mechanical or surgical treatment. Under the head of medicinal treatment may be classed the use of general tonics, the relief of constipation, and the employment of drugs which act upon the walls of the veins. Of these, none now enjoys a better reputation than hamamelis, strongly recommended to the profes-

sion for this purpose by Dr. J. H. Musser a few years ago. It can be given in teaspoonful doses of the fluid extract three or four times a day.

Mechanical treatment consists in the use of a well-fitting elastic stocking, which should extend from the heel to a point well above the highest dilatation, or of a carefully applied bandage. Martin's rubber bandage serves a good purpose, if well put on and if kept clean. It usually produces free sweating, but the discomforts of sweating can be much lessened by putting the bandage on over a clean white cotton stocking.

Surgical treatment of varicose veins consists in injecting them with some coagulating substance, in ligating them, or in excising a portion of them.

If injection be selected, it is best performed as follows: The circulation is controlled with an Esmarch's rubber tube, applied round the leg above the point where the injection is to be inserted, while the patient is standing up. At first only a few turns should be put on, in order to fill the veins up, and then the tube should be wrapped tight enough to cut off all the circulation. Then a single drop of pure carbolic acid should be injected into the veins at several points about an inch apart, and the site of each puncture should be touched with collodion and covered with a little cotton and collodion.

The Esmarch's tube should be left in position for fifteen minutes, and then be gradually removed, so as to avoid the risk of having an embolus swept into the heart. After the operation, the patient should keep his bed for at least a week.

The operation of ligation of varicose veins of the leg is best performed by distending them fully, and then slipping a strong cat-gut thread carefully under them and over them—passing in and out at the same openings on each side—just as is done in ligating varicose veins in the scrotum.

The operation of excision is the most radical and the most curative of all. To perform this operation it is necessary to distend the veins with a bandage, to make a clean cut down upon them, and to pass a strong cat-gut ligature around the lowest point. The vein must then be seized above the ligature with a strong pair of forceps, and lifted up and cut off below the forceps. It is then stripped up, each radicle met with being ligated and divided, until several inches are clear, when the main vein is to be ligated at the highest accessible point, and cut off below the ligature. The wound

should be treated aseptically, closed up, and covered with an aseptic dressing.

Several veins may be operated upon in this way at one time, and even both legs may be operated upon at once. After the operation the patient's leg, or legs, should be bandaged, and he should be confined to bed for eight or ten days.

This operation we can recommend to our readers, if it be performed with care and with correct aseptic precautions. By this we do not mean Listerism, but the improved aseptic method of the present day.

SPECIALISTS' SLANG.

In every approach to scientific exactness there is an outcropping of new words to express the new ideas and finer distinctions which thus arise. The Greek conglomerates which learned neurologists employ to split hairs with are certainly distressing; but for general inscrutability we would command the case records of the modern ophthalmologist. It is only justice to the members of this most valued and affluent guild to say that their specialty presents, perhaps, the nearest approach to an exact science of any branch of medicine. Nevertheless, the hieroglyphics in which they express the exactness of their observations are eminently depressing, and by nine readers out of ten they are looked upon with a curious resentment not unmixed with awe. We feel, therefore, greatly favored in that we could present, in this and in the preceding number of the *REPORTER*, two plain, common-sense, practical papers on the methods of treating common disorders of the eye, and we are sure that our readers will join us in thanking Drs. Turnbull and Jackson for their self-restraint in avoiding these objectionable words and symbols which they would have undoubtedly employed, with great propriety, in talking with each other.

GAS IN THE BLADDER.

M. Charles Tisné reports in the *Annales Médico-Chirurgicales*, of Paris, June, 1887, the case of a man, 77 years old, who had had high fever for several days, and at the time of M. Tisné's visit was profoundly prostrated. For a long time he had micturated only with great and prolonged effort, and drop by drop.

At this time his bladder was much distended, and M. Tisné drew off half of the ammoniacal and purulent urine with a catheter, and injected nearly a pint of boric acid solution. By the next day there was a considerable quantity of gas in the bladder

which escaped through the catheter when it was introduced. This happened five times in ten days, and ceased as the character of the urine improved.

Three months later an abscess broke over the region of the left kidney, and the amount of pus in the urine diminished very much, and no more gas was found in it.

The development of gas in the bladder has been attributed by Guiard to the change of sugar in the urine into alcohol and carbonic acid by fermentation. This explanation may apply to diabetic patients, but cannot apply to non-diabetic. And in a number of cases mentioned by Tisné gas from the bladder has been analyzed and found to be like atmospheric air.

In his own case, the gas may have been disengaged from an alkaline and ammoniacal urine by the action of boracic acid upon some of its ingredients.

In any similar case it would be interesting to make some experiments with the patient's urine and the antiseptic solution used to wash out the bladder, so as to note any chemical reaction between them. It would be interesting also to have an analysis of the gas made. But this would not be easy to accomplish, except in a hospital. If it were done, however, it would clear up a very obscure subject, and throw light on a very curious phenomenon.

A QUEER THEORY.

At the last meeting of the German Surgical Society, Prof. Albrecht said that after the progenitors of mankind had gone for millions of years on all-fours, the sudden resolution to use the anterior extremities only as organs of prehension and the posterior extremities only for locomotion, could not go unpunished. Bow-legs, knock-knees and hunch-backs are to be attributed to the fact that mankind adopted this unnatural posture. To this also is to be attributed the dislocation of many of the viscera. The descent of the testicle is an example of this, and the scrotum is nothing but a normal inguinal hernia.

All these dreadful things Albrecht charges to going on two feet instead of four. He sees no flaw in his argument; although others might suggest that there is as yet no evidence that man's progenitors ever went on four legs, or that it is more natural for the testicles to remain inside of the belly than to be outside of it. Nor does he seem to recall the fact that almost all four-footed beasts carry their testicles in a scrotum, and have the same general arrangement of viscera as man has.

On the whole, we would not recommend mankind to take to creeping again, with hope that they would cure their bow-legs or get their pelvic viscera into other positions, or that they would be any better off if they did.

If we were to offer a suggestion to Prof. Albrecht, it would be that in Vienna knock-knee is more likely to be prevented if the inhabitants among whom this deformity is found were better fed and better housed, than if they were to act upon his interesting, but groundless theory.

NOTES AND COMMENTS.

The Abuses of Milk Diet in Therapeutics.

Dr. Roberts Bartholow presents the following timely paper in the *Journal of Reconstructives* of July 12, 1887:

The therapeutical employment of milk, not only has been popularized and the lay public made familiar with its various adaptations, but in the wake of the general appreciation have followed the usual exaggerations, and hence it is prescribed with little regard to the conditions properly requiring it. Under these circumstances it seems desirable to indicate the limitations of this therapeutical food, and to show wherein it may be hurtful rather than beneficial.

In certain disorders of the digestive functions, milk causes a sense of discomfort, decided uneasiness, oppression—sometimes even pain, and it prolongs the morbid condition. The cases of this kind may be grouped into two classes: those in whom the casein is the offending material; those who cannot properly digest the cream or butter. We find examples of the first class more frequently amongst children, but they are by no means uncommon in adults. They are detected the more readily in early life, because the curds are rejected by vomiting, or appear undigested in the stools. Adults unable to digest casein, or who digest it slowly or painfully, have epigastric distress, heaviness and oppression for several hours after meals, stupor and disinclination for exertion coming on after an hour or two, and continuing until the offending material has passed well down the intestines.

An excellent substitute for the milk when the casein disagrees is barley-water with cream. The barley-water should be carefully strained and have the density of good skimmed milk, and one sixth or one-fourth cream added, so that the mixture has the consistency of rich milk.

The second class of subjects to whom milk is unadapted are the cases of duodenal, hepatic and pancreatic diseases, because of the deficiency in the secretions necessary to the process of emulsionizing fats, and preparing them for entrance into the lymph vessels. Fats decomposing form very irritating fat acids, and the change in the reaction of the intestinal juices is the cause of various secondary troubles in the biliary functions and elsewhere. To fit milk for use under such circumstances, it must be skimmed, and about the time the stomach digestion is completed, aids to the intestinal digestion should be administered. Such aids are a soda alkali, and it may be, some pancreatic solution to effect complete digestion of the fatty constituents.

The mere bulk of the milk is an objection to its use in certain diseases. In dilatation of the stomach, the space occupied by the necessary quantity perpetuates the disease. The reflex effects of distension of the stomach in cases of weak heart, and in angina pectoris, may not only cause distressing symptoms, but may even prove fatal. It cannot be too strongly stated that milk is a highly objectionable aliment in heart diseases, whenever the motor apparatus of the organ is diseased, and whenever its movements are readily influenced by morbid states of the stomach through the reflex channels.

In no malady, as I conceive, is milk more abused than in acute rheumatism. It is very often the chief—sometimes the only aliment employed during the whole course of this disease. Besides the objection inherent in its mere bulk, certain theoretical considerations of its nature should have considerable weight in deciding the question of use. The very obvious objection that milk furnishes lactic acid as a product of its fermentation, should not be ignored. All the world knows the intimate relation between lactic acid and the rheumatic poison. By the introduction of lactic acid, a form of endocarditis not distinguishable from the rheumatic, is set up, and of those diabetics treated by lactic acid, a considerable proportion suffered from attacks of rheumatic fever (acute rheumatism). It is difficult, of course, to determine this point with certainty, but I have reason to believe that patients with rheumatic fever do not get well so quickly, and are much more apt to have relapses when they consume much milk during the course of the disease. Surely, sufficient reasons exist for undertaking a thorough investigation of the question. My

own practice, in the cases in which I am consulted, is to advise against the use of milk as an aliment in acute rheumatism.

In typhoid fever, milk is the one food now given, irrespective of the character of the cases. Of late, this almost universal practice has come to be challenged. It has been depended on, without investigating the state of the digestive functions, and quite unmindful of the effect it may have on heat production. It is often given in too great quantity at a time, or so frequently that the stomach has not disposed of one quota before another is thrust upon it. Unless the gastric juice has preserved to a considerable extent its power of converting the albuminoids into peptones—which we have no right to expect—the casein resists its action; hence it follows that the materials of digestion should be administered soon after the milk is taken, and to prescribe it without reference to the ability of the stomach to dispose of it is to insure increased fever and delirium, and more frequent stools. Beside supplying the means for proper digestion of the milk, attention should be given to its administration at such intervals that every portion given may be disposed of before another is permitted to enter the stomach. It is a trite observation, which is not therefore less true, that it is more important to the nutrition if some food be well digested rather than a large amount be merely swallowed.

Notwithstanding, since Donkin's first reports, milk has entered largely into the dietary of diabetics, its utility has recently come to be seriously questioned. If conversion of milk sugar into grape sugar does not take place, there can be no doubt of the value of milk in this disease, since it possesses so great a number of alimentary constituents. If, as is now asserted, this conversion does take place, the free administration of milk in diabetics, must be regarded as an abuse.

Mistletoe.

E. W. Lane, M. D., writes as follows in the *Atlanta Medical and Surgical Journal* of July, 1887: "What Dr. Todd says of mistletoe is true, so far as my experience goes, and it is a remedy much used in this section by the country doctors. We find it to be a sure and safe remedy. Its action seems to be directed more on the fundus of the uterus than to the whole organ. Ergot is not a safe remedy, as its action takes in the whole organ. Mistletoe is the remedy to expel a retained placenta—it has never failed us. Ergot is the remedy not to give in such

cases. Mistletoe was the subject of discussion at our last meeting of the Ogeechee Medical Association. It was brought out that Dr. T. E. Johnson had successfully treated a case of hydatids of the uterus, the remedy expelling the tumors in a few days. It is used also to expel a dead foetus."

The REPORTER would be glad to have the experience of such of its readers as are familiar with this drug.

Indigo as an Emmenagogue.

Dr. S. T. Yount, of La Fayette, Ind., in a paper read before the Tippecanoe County Medical Society, recommends very highly the employment of indigo as an emmenagogue. He writes: "It is perfectly safe, thoroughly reliable, and painless in its action. It is insoluble in water or alcohol, but readily dissolves in strong sulphuric acid. This so changes its character that it is then readily soluble in water without changing its color.

"It is odorless and tasteless, and may be given in doses of $\frac{3}{2}$ j to $\frac{3}{2}$ ss. The great difficulty is the nausea and vomiting which the crude drug produces when given in very large doses. There are three varieties of the crude drug: Bengal, Turkey, and Chinese.

"The Bengal is richest in coloring matter, containing about fifty per cent., and inasmuch as the virtue resides in the coloring matter, the best effects are obtained from this variety. As an emmenagogue it has been used in my practice about a year and a half. My attention was first directed to it on one occasion when I was called to remove a retained placenta in a case of abortion at the third month. Naturally inquiring what had been taken to produce the abortion, I was told that the lady had taken indigo in teaspoonful doses three times a day, that she had taken it several times, and always with a most satisfactory result to her.

"She informed me at the time that it always produced great nausea and watery discharges from the bowels. Acting on the suggestion offered by this case, I tried it in many and various cases. In one case, where a young lady, aged eighteen, had missed for thirteen months, the menses returned after she had taken the crude indigo for two weeks; but the disgust and nausea produced by the bulky powder rendered her unable to continue it longer, and she menstruated three more months and then stopped again. After using the remedy for eight or nine months in this crude state, I set about to find some way of condensing it, or rendering it less bulky, for it is the bulk of the dose,

not the remedy, that disturbs the stomach and disgusts the patient. About a month later Mr. O. G. Zerse, an apothecary of La Fayette, turned over to me a concentrated extract, as he called it, five grains of the extract equalling twenty-six grains of the crude drug. I have since then used it in forty-eight cases of amenorrhœa, of all kinds and causes, with but three failures, and a colleague has used it in six cases without any failure. To test its effect I have given the remedy in the amenorrhœa of phthisis, and have always had a definite result, namely, the appearance of the menses, the menses stopping again when the remedy was stopped. The effects with the crude drug and the concentrated preparation are identical, except that the nausea does not occur when the extract is used. Then the menses come on painlessly and very suddenly. There is no warning given. In thirty cases the effects occurred about two days after the last dose, the menses coming on without any warning, gushing out and running often to a flow. The hemorrhage in none of the cases was dangerous or alarming. During the administration of the drug the os uteri becomes soft and patulous, admitting the end of index-finger. There is often a serous discharge from the vagina. The urine becomes of a brownish-green color and offensive odor. The stools are of a bluish color. The passages are watery and offensive.

"To summarize, indigo is an emmenagogue of decided value in any case. It should not be given to pregnant women. It should not be given where there is an irritable stomach. It should not be given in cases in which there is a history of previous pelvic inflammation. It should not be given in cases where there is marked cerebral anaemia. It may be given in doses of $\frac{3}{j}$ to $\frac{3}{ss}$, two or three times a day, of the crude drug, or in five-grain doses of the concentrated extract. The powder of the crude drug should be given mixed with a little subnitrate of bismuth, and the patient should drink a little whiskey afterward. In cases in which it is given continuously for a long period, give tr. gentian comp. after each dose. Give the concentrated extract in capsules mixed with extract of gentian and subnitrate of bismuth."

—*Medical Record.*

—Sir William Gull treats his aristocratic patients, as he wishes the profession to believe, by leaving them to their warm bed and nature's efforts.

For Vomiting of Pregnancy.

Professor H. C. Grosvenor (homœopath) says: "My usual treatment is sulphate of hydrastis, dissolved in water, sufficient to give the water a straw color. To be taken *ad lib.* If heartburn accompanies the nausea, put salicylic acid in the same glass. For pyrosis use Apollinaris water. When nausea is very severe two grains of svapnia [a preparation of opium] in half a glass of water is to be taken in teaspoonful doses." Professor John W. Streeter [homœopath] spoke upon the same paper as follows: "I have had some unmanageable cases. My best remedy is chicken's gizzard [ingluvin], ten grains, as often as necessary. My second best remedy is skunk cabbage, 400x. Look out for some local cause. Examine the pelvic organs." It will be seen that the above professors recommend only one homœopathic remedy, viz., skunk cabbage.—*N. Y. Medical Record, July 16, 1887.*

CORRESPONDENCE.

Plugging the Nostrils.

EDS. MED. AND SURG. REPORTER:

Having lately read of a fatal case of epistaxis (something that should never occur when the nostril is properly plugged), I am prompted to give some of my experience. The lint plug, tied through the nostril with a string, is hard to remove; and I have known it, especially in typhoid fever, to excite so much nausea that it could not be retained.

The plan I have followed for many years is to take the cæcum of a chicken, turn it inside out, and scrape the mucous and muscular coats away, leaving the peritoneum. This makes a sack that when passed through the nostril and distended with water and tied in front makes a very efficient plug—large enough to evenly fill the nostril, preventing hemorrhage very effectually. It does not irritate nor stick fast, and is very easily removed by snipping off the outer end, allowing the water to escape, when the gut is very easily withdrawn. I do not claim this as original.

When a chicken is not handy, I have used a gum condom in the same way; and the smaller one of a set of Barnes' bags has answered the purpose very well in a large nostril.

I have tried to have gum bags made on purpose for checking hemorrhage from the nasal cavities, but have been unable to get it done as yet.

With the chicken gut or gum sack thoroughly distended with water and tied to prevent it escaping, I do not believe it possible for a patient to bleed dangerously from the nose.

A. ADV., M. D.

Muscatine, Ia.

Carbon Bisulphide.

EDS. MED. AND SURG. REPORTER:

In the last REPORTER I observe, in a communication from Wallace A. Briggs, M. D., that he commends the use of carbon bisulphide in solution with an aromatic water and milk. Am I right in assuming that this mixture is to be given by the rectum? And if so, is it not likely that so frequent a repetition as he advises would cause diarrhoea? Would it not be well to add some pancreatic to the milky solution?

D. E. MATTISON, M. D.

Warsaw, N. Y.

[The solution mentioned is intended to be given by the mouth. The solubility of bisulphide of carbon in water is very slight, and the water may be many times renewed before the bisulphide is exhausted. Before administering, care should be taken to see that the bisulphide has fully subsided in the bottle, leaving the supernatant water clear. So far as we know, rectal injections of water thus impregnated have not been given. They would present no advantages over administration by the mouth, except in cases of very irritable stomach.—EDS. OF THE REPORTER.]

Base-Ball Injuries.

EDITORS MED. AND SURG. REPORTER:

Sirs: In the REPORTER of July 9 the subject of base-ball injuries is taken up and quite thoroughly treated of, at least so much is said of our national game as to lead one to think that the injuries spoken of were almost miraculous in their healing. We are given to understand that the ball moves oftentimes with the velocity of a moderate cannon ball; that if it were to strike against any part of the person, the resulting injury would be of the most serious character; but that if medical science lets the injury alone, and unenlightened comrades come to the rescue, the cure will be so complete and rapid that the player can nearly always go on with the game uninterrupted. The weak starting point is the writer's description of the ball. First, a rubber sphere; 2d, wound with *woolen* yarn; and 3d, covered with two thicknesses of leather. When "boys" we used to play "sock" with a solid rubber sphere and never were in danger of being killed, either; but then the locality attacked was not so sensitive

as hands and faces. Nothing is said about bats. But there are two reasons why balls are covered with wool. First, to make them springy and comparatively harmless, and 2d, so they will not dent and tear the bat to pieces. Bats being made of light tough wood, are easily "battered up." The fact that one man receives a "foul tip" on his chest and is killed, while another is not harmed from a whack on the head, counts for nothing. How many cases do we see and read about who have succumbed from a light blow on the chest, shocking the movement of a weakened heart, while another has his head pounded almost into a jelly without permanent injury? But that base-balls can accomplish a serious injury we cannot believe, for a variety of causes. Its weight is only five ounces; its bulk nine inches in circumference—certainly out of proportion for very great velocity. The outer surface and intermediate packing are of such a nature to obviate serious contusions. The ball from *atmospheric resistance* can only reach a certain amount of velocity with the most skillful players. The player's hands, from habit, should become so hardened as to not only catch the regulation ball "hot" from the pitcher or fellow-baseman, but even a solid rubber ball.

I had the honor to serve several years as first baseman when Capt. Kepner, a noted athlete, was pitcher, and hundreds of balls have I taken from his hand which came with all the force of his mighty arm; and to-day, although my service was "hot" while it lasted, I cannot point to a joint injured or a cut received, and although it has been several years since I held my "right foot on the sand bag," yet I will wager, that unaccustomed as my hands now are to the "horse skin" cover, I will take the "hottest" ball and not wince.

Injuries are injuries, and if a substance which has the power to break one's skull, strikes the body, serious consequence must arise, and the cure is slow, if at all. We all know that subluxations of phalangeal joints are the simplest of injuries upon which the surgeon is called to show his skill.

We have known shoemakers who could strike the bare knee with the steel head of a shoe-hammer, hard enough to crack walnuts or hickory nuts, yet without pain or injury. We have seen men, the inside of whose hands were so hard and horny that it was difficult to push a needle through the skin. Base-ball players by cultivating the art of catching a ball should become so accustomed to the work as not to feel a "hot" ball in any disagreeable manner. The inside of the hands

being naturally hard and dense, can by constant contact with a hard object, become almost insensible to pain. The ease and rapidity with which base-ball injuries are healed is proof positive of their trivial nature.

One source of injury in base-ball playing not mentioned is the careless manner in which the bat is handled by an excited player. After having made a strike, instead of dropping the bat, he often, in excitement, will throw it with such momentum that coming in contact with a neighbor, injury has resulted.

In closing, I wish to say that I have read Dr. Leuf's article with much interest and pleasure, and hope he will write again upon the game of games, this note being written merely to suggest some points which seem overdrawn. Truly yours,

JAMES BATES, M. D.

NEWS AND MISCELLANY.

A Question of Ethics.

Last Spring, Surgeon General John S. Hamilton, of the Marine Hospital service, preferred charges to the Medical Association against Dr. Sowers of unprofessional conduct in criticising publicly, from a medical point of view, the manner of living of the President. Dr. Sowers has now preferred charges against Dr. Hamilton of having violated the association's regulations, in having shown to Ex-Representative Hazleton the charges which he was about to prefer against him (Dr. Sowers) last April. This was done, it is charged, with the full knowledge that Mr. Hazleton and his family were patients of Dr. Sowers, and was intended to lower him in the estimation of his patients.

The case of Dr. Sowers has not been formally disposed of, but the result of the investigation by the Standing Committee is equivalent to an acquittal. It requires two-thirds to convict, and unless this number favor conviction it is not deemed necessary to make a report to the association. Two-thirds did not vote guilty. A minority and majority report were prepared, and there the matter rests.

French Toilet Preparations.

In a report submitted to the Hygienic Council of Paris by Drs. Dubrisay and Chauvin, the authors state that the perfumery and toilet products now sold contain so many noxious substances that it is desirable the factories should be placed under special surveillance. They give a number of instances

in support of their statement. The so-called "harmless and purely vegetable" hair dyes, they say, are all poisonous. "Progressive dyes" are ammoniacal solutions of nitrate of silver. The "instantaneous dyes" are a solution of litharge in lime water. "Eau des Fées" is a solution of sulphate of lead in hyposulphite of soda. "Eau Figaro" consists of three solutions: (1) of nitrate of silver and sulphate of copper; (2) sulphide of sodium; (3) cyanide of potassium (to remove the silver stains). "Eau des Fleurs" is composed of rose-water, 95·5; flowers of sulphur, 2·7; acetate of lead, 2·8. Passing to cosmetics, they say "Lait antipellelique" is composed of corrosive sublimate, 1·7; oxide of lead, 4·22; sulphuric acid and camphor. "Lait de Manille" is a mixture of borax, copper, tincture of benzoin, and essence of bitter almonds; "Lait de Ninon," of bismuth and zinc; "Eau Magique," oxide of lead and hyposulphite of zinc; "Eau de fleur de lys," protochloride of mercury; "Eau royal de Windsor," glycerine and oxide of lead; "Eau de Castille," hyposulphite of soda and acetate of lead. The "Poudre Pilivore de Laforet" contains mercury (?) 60 grs.; sulphide of arsenic, 30 grs.; litharge, 30 grs., and starch, 30 grs. "Epiteline" is simply sulphite of calcium, and "Antibolbos" hypophosphate of soda. Pomades against baldness all contain cantharides and croton oil.

Northeast Virginia Medical Society.

At a meeting of this society, held June 27th, 1887, Dr. Frederick Horner made an address in which he said that the success of a society depends mainly upon its officers, and that all the members ought to take a deep personal interest in the society to which they belong. He called attention to the study of inebriety as a disease.

The Northeast Medical Society has been in successful operation for ten years, meeting monthly at Warrenton, a town named in memory of the great patriot, Dr. Joseph Warren, of Revolutionary memory, and the birth-place of the late Professor W. E. Horner, of Philadelphia. Among its Fellows representing a portion of the Piedmont section of Virginia, and including the counties of Fauquier, Prince William, Culpepper, and Loudoun, are three distinguished physicians, Drs. Henry Trist and Clarkson and Dr. Hicks, late of North Carolina and Charles-ton. The Committee on Publication propose at an early day to publish a medical monthly.—*From a special correspondent.*

No Crown for Esculapius.

It was expected that the tacit understanding which excludes the members of the most useful and beneficent of the professions from the peerage would come to a timely end in the Jubilee year, and that Sir William Jenner would be made a baron. However, it seems that the satirical poet wrote with some truth :

"Forbid it! forbid it! ye barons and earls;
Oh, Rank, how thy glories would fall disenchanted,
If coronets glistened with pills 'stead of pearls,
And the strawberry leaves were by rhubarb supplanted!"

—From the London World.

Electrolysis in Angioma.

Dr. Julian Alvarez speaks favorably of electricity in the treatment of angioma. He uses Onimus's apparatus, the positive electrode being plunged into the tumor, while the negative is moved about over the surface of the latter.

Items.

—Dr. Packard has removed to No. 1926 Spruce Street, Philadelphia.

—“Hello, Major,” said the Judge, “I haven’t seen you for a week; where have you been?” “Been home sick as a dog,” replied the Major. “You! Why, you are always as healthy as could be. What in the world made you ill?” “Well, I tried to follow some rules on health I saw in the papers.”

—A patent medicine man has frightened a good many people by announcing, in big type, that to want to sit down after walking all day is an infallible sign of kidney disease. There are only a few people who don’t want to sit down after walking all day, and most of those who feel this insidious symptom of a dangerous disease will be astonished to learn that they are not merely tired.

—A doctor in an eastern city was recently convicted of criminal abortion and sentenced to seven years’ imprisonment. His defence was that he thought he was treating a case of dropsy. But he did not explain why a dropsy should be treated through the vagina.

Mrs. Foshay (to prospective nursery maid)—You are fond of children, of course? Applicant—Fond of em? I should say I was, ma’am. If I hadn’t been I wouldn’t a nursed my sister’s nine young ones that was down with scarlet fever till every blessed one of them died, ma’am; and buried the last of ‘em a week come Friday.

OBITUARIES.**DR. GEORGE LITTLE.**

Dr. George Little died suddenly in Philadelphia, July 19th, from extreme prostration, caused by overwork. He was born in England about thirty-four years ago, and, coming to this country with his parents when twelve years of age, he settled in Philadelphia. A few years later he began the study of medicine in the Medical Department of the University of Pennsylvania, from which he was graduated in 1878. Since then he has practiced his profession in this city, and was well known in the locality in which he lived. He leaves a widow and two children.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service, for the week ending July 23, 1887:

C. S. D. Fessenden, Surgeon, granted leave of absence for thirty days on account of sickness. July 18, 1887.

F. W. Mead, Passed Asst. Surgeon, granted leave of absence for thirty days. July 19, 1887.

H. W. Yeomans, Passed Asst. Surgeon, granted leave of absence for thirty days. July 23, 1887.

S. D. Brooks, Passed Asst. Surgeon, promoted and appointed Passed Asst. Surgeon from July 1, 1887, to July 21, 1887.

J. H. White, Asst. Surgeon, to proceed to Washington, D. C., as escort to an insane seaman, July 18, 1887. Ordered to examination for promotion. July 23, 1887.

R. B. Watkins, Asst. Surgeon, leave extended fourteen days on account of sickness. July 20, 1887.

G. M. Magruder, Asst. Surgeon, to proceed to Galveston, Texas, for temporary duty. July 21, 1887.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from July 16, 1887, to July 23, 1887:

Par. 13, S. O. 167, A. G. O., July 21, 1887, assigns Lt.-Col. A. Higer, Surgeon, to duty as member of Army Retiring Board Command, at Governor’s Island, N. Y. Harbor, N. Y., vice Col. Chas. Sutherland, Surgeon, hereby relieved.

By par. 43, S. O. 162, A. G. O., July 15, so much of par. 1, S. O. 156 O. S., A. G. O., as directs Capt. Jno. de B. W. Gardiner, Asst. Surgeon, U. S. Army, to report for duty at Ft. Washakie, Wyo., is revoked.

Capt. R. Barnett, Asst. Surgeon, sick-leave still further expended six months on account of sickness. S. O. 162, A. G. O., July 15, 1887.

By par. 42, S. O. 162, A. G. O., July 15, so much of par. 1, S. O. 146, C. S., A. G. O., as relieves Capt. Geo. Tomey, Asst. Surgeon, U. S. Army, from duty at Ft. Monroe, Va., is revoked.

Capt. A. W. Taylor, Asst. Surgeon, now at Ft. Laramie, Wyo., is ordered for temporary duty at Ft. Robinson, Neb. S. O. 162, A. G. O., July 15, 1887.